THE

MASSACHUSETTS TEACHER.

Vol. V. No. 12.] C. S. PENNELL, Editor of this Number. [December, 1852.

GENERALIZATION.

To advance from the observation of particular objects to the consideration of the relations which exist between them, is a great step in mental progress. Rude men taking the first step towards civilization, look on the individuals which compose the great families of nature, without discovering their relationship. They consider objects singly, and give to each a specific name. Selecting one quality common to many objects, and giving to all the objects which possess that quality a common name, marks an era in their advancement. The people whose thoughts and language embrace only club, arrow, bow, is far behind that which has thought and said weapon. It is not until common properties and similar phenomena have been observed and grouped together under a common name that we have science. Science is classified knowledge.

Without this abbreviation by the use of common terms, we could master but a small part of the knowledge which we are now able to compass. Without it, the student of any science commences as the discoverers did,—to examine objects one by one; with it, he learns one form of structure, and has thereby learned the characteristics of a thousand objects. Without it, he must learn the action of the various forces of matter, in all objects and under all circumstances, as the first investigators did; but with it, he takes the result of their labors, which under one general law includes as many cases as he could investigate in a lifetime; and, having learned this mode of action in one case, knows it, substantially, for all. The former course is the neces-

sary method of discovery, the latter is the method of study. Lord Bacon taught how to *make* science, not how to *study* it.

The order of intellectual growth in our race is the same. The child at first looks at things as individual objects. After a time he finds that several of them are alike in one particular, and makes of them a class. He uses at first the specific names, apple, pear, peach; but after a time he comprehends the common term, fruit. Thus the child is doing the intellectual work which the philosopher calls abstraction and generalization. And he does this quite early in life. He is entering on it as he sorts his playthings. His first lessons in grammar give him practice in it. He cannot well learn the climate and productions of the earth without ascending to the notion of a general law.

The power of classifying is not developed so early in life as that of observing single things; indeed, the latter *must* precede the former. Hence children must first learn single facts and the properties of single things, and the effort to make them comprehend general truths is trying to improve on the Creator's plan. Nature, however, so resists, that, though grave problems of philosophy be disposed of in the infant school, the whole is only the work of memory. Still the teacher may, without incurring the guilt of making precocious children, try to lead his pupils to the comprehension of general principles. He will do this in the common lessons, without any appearance of effort, and without the pupils ever thinking he is doing any uncommon, or certainly any difficult thing.

The word "common" itself affords a good instance of transferring an idea which we have learned in one place, to another subject very different in every thing save this one common thought. The boy understands that "the common" is a place to which all the people have equal claim; he easily sees that if John and James have bought a sled together, it is "common" property; he sees, as he commences grammar, that beech, chestnut, oak, maple, denote objects which can all be designated by the term tree; that tree is a name which they all share in "common," and is, therefore, called a "common" noun; he sees that parent is a word which the father and mother may both appropriate, as John and James owned the sled, and therefore it is called a word of "common" gender. He sees, when he comes to fractions, that 2 is a divisor of 4, 6, 8 and 10. As a divisor it is "common" to all of these numbers, and is therefore called their "common" divisor; thus of common multiple, common ratio, &c. The idea expressed by the word common is in all the cases the same, and if the pupil understands it in one, he is ready to apply it in all the other cases. We will give some instances in which it is apparent that some labor is saved, better mental culture secured, and a knowledge of valuable physical laws obtained by the pupil.

In Geography, many facts are stated concerning the temperature of different countries. To prepare a few of these for recitation, is as much work as to learn the effect of latitude and elevation on temperature, and then to apply these laws to determine the temperature of any country. Pupils learn words which express the character of the soil in different countries, at as great an expense of labor as would acquaint them with the great mountain ranges, valleys, and alluvial plains, and show them the dependence of the soil on these natural features.

Facts about the humidity of the atmosphere and the fall of rain, are recited and forgotten, while the pupils might learn the dependence of these things on proximity to the ocean, prevailing winds and mountain ranges, so as to read these facts with an approach to correctness, from the map of any country. When these laws and their application are understood, the adaptation of any tract of country to any department of agriculture may be inferred with a good degree of certainty, and it only remains to learn in what instances the general laws are modified by the action of partial ones, and how far different countries have improved their natural facilities. Look to the United States. In some of our school geographies, about two lines are allotted to telling the climate of each State in our Union, perhaps as much more to the face of the country and soil, and about the same space to a statement of the productions. Most pupils learn these statements with ease, and all forget them with sufficient readiness. But if the pupil learns that all along east of the Alleghany Mountains there are three belts,—tide-water, middle and upper country,—he obtains what is important in itself, and, together with latitude, is a key to nearly all the facts contained in the reading referred to. If the distance which the several Atlantic rivers are navigable is desired, the pupil has only to trace the line which separates the tide-water section from the middle country. He will observe commercial towns at the points where this line crosses the rivers, because they are at the head of navigation. He will observe falls in many of the rivers, at these points, affording water power, which has added a manufacturing to the commercial interest of these places. How much pleasanter it is for the pupil thus under the guidance of general laws almost to create for himself at will, facts which many learn one by one to-day and forget to-morrow. In doing this, he thinks he sees reasons for things.

Felix, qui potuit rerum cognoscere causas.

Pleasant illustrations abound every where. The law that the western coasts of the northern continents are warmer by 20° of latitude saves learning many facts; and when its cause is seen in the prevailing southwest winds and oceanic currents,

it will never be forgotten. The classification enables us to remember many facts as easily as one ; and a few facts, as illustrations, make it easy to remember a law.

How many single facts are made evident by knowing that clouds do not rise high enough to pass high mountains, and that the air which does pass and descend on the other side has parted with its moisture and descends dry. See the effect of this law in the climate of the basin of the Great Salt Lake, where the water which runs from all sides to its centre is evaporated, floats against the sides of the mountains, is condensed and returns to be evaporated again, and thus repeats its round forever; or in Hindostan, whose eastern coast is deluged by the northeast monsoon, and the western by the southwest monsoon, while the table land in the middle of the peninsula, cut off from the winds by the coast ranges of mountains, is very dry.

But let us pass to Arithmetic. In fractions, when a pupil has learned that the denominator tells the size of the parts of the same or an equal unit, because it tells into how many pieces the unit is divided, and that the numerator tells the number of the parts taken, he possesses the key to all which remains ; for the operations are all explained by reference to these two principles. Take the following examples.

1. $\frac{2}{7} \times 2 = \frac{4}{7}$. The pupil will say of the work he has performed, "I know I have multiplied the fraction by 2, for I have twice as many pieces as before, and they are of the same size."

2. $\frac{4}{7} \div 2 = \frac{2}{7}$. The fraction is divided by 2, for there are one half as many pieces as at first, and they are of the same size.

3. $\frac{5}{6} \times 2 = \frac{5}{3}$. The $\frac{5}{6}$ is multiplied by 2, because the $\frac{5}{3}$ denotes the same number of pieces as the $\frac{5}{6}$, and they are twice as large.

4. $\frac{5}{6} \div 2 = \frac{5}{12}$. The $\frac{5}{6}$ has been divided by 2, for the new fraction denotes the same number of pieces, and they are only one half as large.

In reducing fractions to lower terms.

5. $\frac{6}{8} = \frac{3}{4}$. The value is not changed, for the new fraction denotes one-half as many pieces, and they are twice as large.

$\frac{6}{7} \times \frac{4}{5} = \frac{24}{35}$ consists of the first and fourth operations, and the reasons may be given in the same manner.

$\frac{8}{9} \times \frac{3}{4} = \frac{2}{3}$ consists of the third and second operations.

$\frac{5}{7} \div \frac{3}{4} = \frac{20}{21}$ consists of the fourth and first operations.

$\frac{8}{9} \div \frac{2}{3} = \frac{4}{3}$ consists of the second and third operations.

$\frac{4}{9} \times \frac{9}{17} \times \frac{17}{18} \times \frac{18}{5} = \frac{4}{5}$ is only reducing fractions to lower terms, the fifth operation above.

Many teachers, perhaps, in passing over fractions, point out this reference of the above operations to the two simple thoughts

on which they depend, but the books, so far as the writer has observed, would lead the learner to consider them as ten distinct operations.

Some of the operations in fractions, for which independent rules are given, may be referred back to whole numbers.

What fraction of a £ is $\frac{3}{8}$ of a penny? does not, in the reasoning employed, differ at all from changing pence to pounds in whole numbers. The *work* is fractional, to be sure, but the reasoning is the same.

What fraction of a d. is $\frac{1}{240}$ of a £? = change pounds to pence in whole numbers; and it is a waste of labor and a deadening of perception to consider it a new process.

What is the value of $\frac{3}{4}$ of a pound? is referable to the same. Why have so many independent rules? If pupils understand one of these processes which are referable to the same principle, why not refer all the subsequent cases back to it? Federal money and decimal fractions, which used to make separate rules, are now usually put with the common notation; the identity of multiplication and division with forms of addition and subtraction is commonly noticed. But we forbear.

Every one recognizes this principle in learning language. The etymology of words is learned because it gives assistance in learning the meaning. One hundred and twenty-five words in our language, are from "Ferro" as a root; from "Facio" more than three hundred and fifty; from "Pono," more than two hundred and fifty. It would seem quite worth the while to know the signification of these roots for the assistance they would give in learning the signification of our own words.

We have dwelt on the saving of labor as the most *obvious* advantage of this reference to general principles, though we think its influence in cultivating the reflective faculties is by far the most important consideration.

MEANS OF EXERCISE FOR GIRLS.

We hear much, now-a-days, of the importance of physical exercise, and yet I do not see, that, in general, any systematic means are employed to secure it. Girls who walk a mile, or even half that distance to school, are thought to be subjected to quite severe labor; and many young ladies out of school rely upon the interchange of visits to furnish all that is needful, both of fresh air and exercise. Fortunately, the number of families among us is not very great, who possess sufficient wealth to allow the females of the household an entire exemption from domestic duties, and by this work, the mother and older daugh-

ters gain something denied to the school-girls. But that this is altogether insufficient to secure bodily health and vigor, every observer must be convinced. Pale faces, fragile forms, weak nerves, are almost universal; disease takes away joyousness and energy: — and at last, when the penalty of violated physical laws is too heavy to be borne, death comes, a dreaded messenger, but nevertheless a kind deliverer.

All this goes on, home after home is made sad and desolate, while many of us know that much of it might be prevented by judicious physical training.

One of the first steps of reform should be in the habits of girls at school. Usually, they are confined there six hours daily; most of this time they are leaning over their books, with brains at work, most likely in bad air too. The recesses, which, by the way, in most of our schools are quite too short and infrequent, are spent by the boys, in sports which move the long-unused muscle, and rouse the sluggish blood; their systems are freed from a superabundance of carbon, and they return to the school-room with new life in limb and brain, indeed re-created.

But with the girls it is very different. When the weather is cold, they linger about the stove if permitted; and at other times, eating the luncheon, or enjoying the social chat, in some sheltered nook, is their only occupation.

I know of one school, and hope there are others, where better practices prevail. I refer to the Model School at West Newton. By the exertions of the teacher, the upper story of the school-house has been fitted up as a gymnasium for the use of the girls. It is delightful to see them chasing each other up and down ropes suspended from the ceiling, across the room upon horizontal ladders,—some in a swing which is moved by a sudden action of the muscles of the back and chest, thus changing the position of the centre of gravity; some leaping over horizontal bars, and others giving to eyes and hands the training afforded by a nine-pin alley. But my thoughts always turn with pity to the thousands of girls in the State, who are growing up without healthful exercise, or rather only half growing, because only a small part of their muscles are ever brought into use.

Those children who have practised these gymnastics longest, and are more expert in them, may be easily distinguished from the others, by the greater freedom of their motions, broader chests, and more erect bearing. Why should not every school have similar arrangements for securing these very desirable ends? The expense is trifling Fifty dollars is quite sufficient for furnishing a gymnasium for a common district school. These exercises should not take the place of walking and running in the open air, but should be added thereto; walking is better

than sitting still, yet altogether insufficient for developing the muscles of the chest and arms.

To build up a muscular system which shall balance the highly wrought, nervous systems, produced by the brain-work of schools, and the excitements of society in these stirring times, vigorous muscular exercise is indispensable.

Let teachers but take the proper stand in regard to this matter, and we may hope the time will soon come when our women shall have, not only heads as full, but hearts as brave, and arms as strong as their grandmothers of the loom and the spinning-wheel. Teach the children that if they would have clear brains, steady nerves and happy hearts, they must exercise once a day at least, better twice, till they induce a profuse perspiration. Demand that they shall be furnished opportunities for securing such soundness of body as is the indispensable condition of soundness of mind. Else, strive as earnestly as we may, so to cultivate the intellectual and moral powers of our children as to fit them for the great duties of life, we shall often have the bitter disappointment of seeing the fruit of our instructions, like seed sown where there is no depth of earth, wither away.

A TEACHER.

STUDY THE READING LESSON.

WHO reads a book twice? Many books are read which are not worth reading twice, nor once; and they consume the time which should be spent on books worth studying. Cowper and Young and Addison are the "much praised and little read." Those persons who can repeat extended portions of substantial prose and choice poetry, the study of their youth,—for it is learned then if ever,—are few.

But it was more particularly of school reading lessons than of general reading, that we were purposing to speak; and our exhortation is, Re-read. If it be on the primary school drill, whose usual object is only to learn the words, we say, Re-read till the forms are familiar to the eye, and the sound to the ear; till the child can speak each word without any stopping to spell. Then talk of the meaning of the words till the little sentence conveys an idea, and re-read it, as if uttering a thought, with a mind not burdened by the effort of calling the words. Then the child will read the sentence somewhat as he would have uttered the same words, had he wished to speak them on the play-ground. It cannot be doubted that a large part of the drawling, sing-song reading of children is due to trying to enunciate the sentence while the mind is occupied in finding

out the words. Hence we say, Make the words familiar before attempting to read them as a sentence. It were well to have the pupil read the sentence part of the time backwards, or speak the words from columns in which they occupy different positions, so that they may not be learned in a consecutive order.

After the pupils are able to read plain reading, we say just as earnestly, Re-read. Different members of the class will read with different pauses and inflections. Discuss these different readings, then repeat the correct method, till the reading and the thought are well associated in the pupil's mind.

And if the learners be an advanced class, we again say, Re-read. Perhaps we can now read more for the thought than for the manner. Read, then, and study many passages till their excellences are seen and felt; till the rhetoric is understood; and then no injury will be done, if many good thoughts, in the very words in which the authors expressed them, be committed to memory. We believe their good influence will be stronger than commonly follows what is so easily secured and so generally neglected. The influence of carefully studying a production of a well-constituted mind is hardly explained in our philosophy. The dead words bear in them an influence which leavens the mind with the author's habit of thought, his predominant feeling and his mode of expression.

Who is not oftentimes conscious of effects produced upon himself which he cannot analyze and refer to specific causes? Indeed, to analyze the influence which an associate exerts, and refer each portion of it to a probable source, is a complex problem. No more than an approximate solution is possible. To the metaphysician, the attempt is interesting; to the practical man, valuable; for modes of influence can afterwards be better adjusted to produce a given result. We are affected as we stand by the tomb of a great man; but you can hardly tell through what faculties and by what mode of action the effect is produced. How is it that we are moved by a sublime sight or a magnanimous act? that we feel as we do the presence of a superior intellect? that the presence of a pure mind is a shield against an unchaste thought? that one determined mind rules a multitude of common men? How is it that by companionship we are changed in speech, opinion, taste, voice, motion,—even in the very things which most characterize us and distinguish us from others? How is it that a pupil, in reciting to a teacher who has all the lesson in mind and steadily passes over it just in advance of the pupil's words, feels assisted? or that an explanation from a man who is thinking it clearly and strongly, seems to carry an influence not possessed by the same words and inflections coming from another's lips? and that the presence

of another confuses and disturbs the course of thought, almost as a magnetic needle is disturbed by electric currents? Philosophers may give certain answers to such questions, but all philosophy reaches only to show us that certain effects follow certain causes; and this indeed is valuable, because our confidence in the uniformity of the Creator's laws is such that we trust that the same things will continue.

No man has made a book of rhetoric without placing above all his other rules, — "Study the style of the best writers." Reading a well-written book, besides the thoughts which it communicates, gives us better words, better forms of expression, and, what is much more, helps our minds to work in the manner of the author's mind. This last is of the highest value. This influence becomes more a part of the learner's self than the meanings and forms of expression. We study Geometry mainly to repeat the forms of reasoning till a logical conclusion shall follow spontaneously, in our mind, the premises on which it depends. As we study an argument of Mr. Webster or Mr. Calhoun, we yield our minds to the author's course of thought. I do not mean that we assent to his statements. That is but a little. But our thoughts take the form and succession of the author's; we approach the same state of mind which he had; we seem to be thinking with him as he plans the argument; we weigh with him the proofs, and feel them accumulate; we triumph with him over the demolished arguments of an opponent, and feel proud with him as objection after objection is answered.

To powers less taught and weaker, this course of thought is a guide and a support. And the better the reader understands it, the more fully he appreciates it, the more perfectly he possesses its force and feeling, and is himself possessed by it; the more is his own mind guided, strengthened, and inspired by it.

Now, what better culture can we have than thus to follow the workings of a superior mind? By thus following the course of able thoughts, the mind will, if in any way, become able to conceive and express such thoughts itself.

Perhaps this result is more apparent in poetry, as the taste and the feelings may be more susceptible to this kind of influence than the reasoning faculties. In order that the poetry may do its full work, we must study it till we feel somewhat as the author felt when the inspiration of composition was upon him. How can the unfledged better rise to those thoughts and emotions which are in some measure peculiar to poetry, than when buoyed up by the wing of a master of such thoughts and emotions? A moral picture by a gifted poet affects one more than a similar real scene would have done; for the poet selects

the parts which are best for us to observe, and arranges them for us. He, as it were, stands beside us and points out what objects we should observe, and presents them to us in the order and connection in which they will affect us most. Who has not felt a good description of a familiar scene lift up a veil so that he saw new beauties? Go with Bryant to a forest in winter, and you will see more on his pictured page than common eyes have observed, though they have been familiar with the real scene.

If you look at a painting, especially one designed to produce a moral effect, you want the artist's design given you, unless you are willing to study till you discover it. The piece does not do its work upon you, till you study, in the spirit of the author, the feelings he has portrayed, and the lessons he designed to teach; till you think and feel somewhat as he did.

If a passage of poetry or a picture excite a proper emotion, when reperused after a lapse of time, it will excite the same emotion more strongly; and if it be truly a master's work, its influence upon us will increase at each review. Not only will the old impression be strengthened, but new excellences will appear, new thoughts will be suggested, new feelings excited, each strengthening the other, and all deepening the original impression.

Hence we say again, Re-read.

NEWSPAPER STUDY.

We knew a very successful female teacher who carried into school as many copies of the Boston Traveller, as there were pupils in the division for which she proposed an exercise, and, commencing at the beginning of the paper, not omitting even the name and date, perused it, one exercise a week, for three or four months. The teacher and class examined the paper in course, talking, questioning each other, and each pupil bringing, on the morning of the exercise, the results of the week's inquiry and investigation.

What could the first exercise be, commencing with the title of the paper? Here is printing. Let us inquire when printing was invented, and what were the circumstances attending its invention, with some history of its progress. Some pupil will be able to state facts in the history of the public press, especially in our own country, can tell something about printing presses, stereotyping, &c. without going into details which cannot be understood and will not be remembered. The work of editors may be a topic of remark, and the means they use for obtaining

early intelligence, reporters, &c. Different pupils have different sources of information. One is the son of an apothecary, one of a ship-master, one of a printer, &c. Some one is likely to have information on whatever subjects the exercise may embrace, and each will communicate what others have not had the means of knowing. To this the teacher will add what he thinks proper and can, calling attention to what is most important, perhaps arranging facts a little so that they may be more easily remembered, and commencing the exercise of the next day by a review of what is most valuable.

If a teacher is intelligent, and will make some preparation, such an exercise becomes both pleasant and profitable. In the case referred to, the paper was nearly completed, ship news, advertisements and all. We might mention as advantages, that the exercise tends to excite an inquiring state of mind during the week in both teacher and pupil; and if this is, in some good degree, done, so as to become habitual, one of the very highest advantages of school and study is secured; that much valuable information is acquired, and of a kind which is not reached by the regular studies of school; and that the pupils practise talking.

But this, like almost every means of good, may be misused. It will not be, for all the class, in the highest sense, study. Indolent pupils may wish to forget the difference between this voluntary exercise, and the preparation of the ordinary lessons; they may think that their nearly passive state of listening, talking a little, and remembering what is attractive, can be a substitute for study. Some much rather talk than recite, and therefore wish to carry this method into the ordinary recitations. I well recollect hearing a student boast that when his turn came to recite in rhetoric, not having read the lesson and knowing nothing of it except the subject, he proposed some objections, got up a discussion to consume the time, and was marked ten for a perfect recitation. General exercises may occur too often. The reader doubtless has known schools where talking and lecturing have taken the place of conducting recitations. This may make the teacher very popular, for a while certainly, and the pupils very wise in their own conceit; but it will fail to discipline their minds, it robs them of just that labor and application which alone can give them strength and vigor. It is itself mental dissipation.

Some reader, a teacher, may say, "All this is very well, but where is the time for it?" We answer, that the object of school is improvement, and, in our own opinion, some time may be spent as profitably in occasional general exercises of this sort, as in any other way. And from observation we believe that in schools where something of this is done, quite as much else is done besides.

A FEW HINTS FOR ONE ABOUT TO COMMENCE A DISTRICT SCHOOL.

The following letter was written as it purports, and is published on the probability that there are some persons about commencing district schools who are making the same request as the individual to whom this was addressed.

L——, Nov. 10, 1851.

FRIEND N——: You ask me to give you what you have been pleased to call the "results of my experience." I have never felt more fully conscious of my inability fully to discharge the duties of the school-room than I do now; and, if experience has done no more, it has shown me many deficiencies. Still, however, I remember some peculiarities of the country district schools, and will drop a few hints which may bear to you my best wishes for your success. Let me in the first place ask you to remember that any plan or scheme may work well in one man's hands and under one set of circumstances, and utterly fail when conditions change.

On first meeting your pupils, do not allow yourself to be disturbed by the novelty of your position; your natural ease of manner, and your feeling of sympathy with those around you, will shield you from putting on the airs of a master, while your just appreciation of your position will teach you what respect is due from those under your care. Our actions spring from our thoughts, and he who knows himself and the position which he occupies, can hardly fail to fill his place with propriety. The best assurance of a kind and gentlemanly bearing toward pupils is found in a benevolent heart and a cultivated understanding.

Opening school. The busy sounds of gaping, curious inquirers, subside as you enter the school-room, and the crowd of life now waits your direction. If it is your purpose that your first exercise be reading the Bible, have all the other books laid together, and, in general, do not have them taken from the desks till after the reading is finished. This prevents noise, and separates the present exercise from the ordinary business of school. Quiet being secured, let the older pupils read two verses each in turn. It is not best for the smaller pupils to read; let them wait till they can read well enough: but be sure that all who can read the Testament, have books and pay attention. From what I know of your opinions and feelings, I judge that you will wish to follow the reading by brief prayer. I advise you to do so. You will feel calmed, refreshed and strengthened. Your pupils will pass to their work more quietly, and to better purpose. I like to have a school repeat the Lord's Prayer in concert. This would no doubt seem strange to your pupils, but in a few days they would

all easily speak in the same time with you. These opening exercises may occupy about fifteen minutes; less, rather than more.

Let the discipline of your school be your first care. You will not understand me to recommend you to begin with presenting a code of laws, nor with a particularly majesterial manner. Not at all. But have, at first, as distinct a notion as possible what the condition is which you desire, and then use *in season* the best means to secure it. Forestall evil by securing attention to something good. Hence, tell the pupils by your manner, and in words, too, that you have come to help them reap the greatest profit from the winter's opportunity. That the business of the place is study, and that, for their good, and their comfort, as well as for yours, nothing should be admitted which is likely to interfere with study. Say to them, perhaps, that from your recollection of your own school-days, and also from the testimony of experienced teachers, you believe that whispering, with other forms of communicating among pupils, is the great evil in most schools, and is the entrance for almost all the other evils which disturb their quiet and progress. I have often closed my remarks on this subject, by saying that I considered refraining from whispering of so much importance, that to refrain from it and from its substitutes, was all I had to suggest; and that, to call their attention more directly to it, as well as to offer some stimulus to watchfulness and self-control, I would, before the morning's recess, ask all those who had refrained from whispering to rise. Sometimes I have divided the question, asking first if there were any who had not voluntarily communicated in any way, by writing, motioning, &c.; then calling on those who had refrained from communicating by whispering. Express your satisfaction with the success of those who have been successful, and remind the others that you will repeat the inquiry at noon. Inquire often, until the habit of refraining is formed; for the pupil will think it comparatively easy to do without communicating with his neighbors for half of the morning, when it would look like an impossibility for him to do it all day. Tell them how much easier it is to refrain entirely from communicating than pretty nearly to do it. A vague purpose to do about thus or thus, is not worth much; but a resolution to do this very thing, and to begin now, makes success nearly certain. If you purpose on a pleasant evening to accompany your friend towards his home *a little way*, where will you stop? If you speak of going *so far*, the question is all settled. By this plan of inquiring a large majority of the school will have their course fixed for the winter. Ask those who do not refrain, to consider which portion embraces the best scholars and most trusty pupils, those which are most esteemed in the neighborhood. I like to keep a record of each half day's success.

If some consider this a milk-and-water government, only playing with them, and begin to annoy you by improprieties, try talking with them alone, and such stronger influences as you find necessary. But in what you require, be obeyed. Respect for authority is so little required in many families at home, that if that habit of obedience to just rule, which is more necessary in making a good citizen than correct language, be not formed at school, the boys and girls will grow up without it. This voluntary method in respect to whispering has served me better through all my teaching than anything else. But your discretion must be your tutor. Be particularly careful that the reporting does not lead to a disregard of truth.

As quickly as possible give all your pupils employment. A good beginning being made in respect to whispering, and just enough work assigned to employ each pupil till he expects to recite, taking care yourself to have leisure enough for observing what passes in your realm, government will be known only in respect to such pupils as purpose mischief; and if there be such, very likely the general current of the school, with your kind, frank, and independent manner, will prevent such a purpose from being carried into effect.

Take time enough to arrange your school. Well begun is half done. Before you can classify your school, you must know what it contains. To obtain this information, I have been accustomed to rule a sheet of paper from top to bottom, leaving the first space wide enough for the pupil's name, the second for his age, and the following ones for writing the names of the studies of school. Then, each pupil being called in turn, his name, age, and the studies he desires to take, are entered in the proper columns. This takes time, but when it is done you have the whole before you, and can readily see how many classes you must have, &c.; give them all some work to do while you are doing this. Some assistance in classifying may be obtained from asking the several classes, as they were arranged in the last school, to rise.

Have as few classes as possible. I am not a believer in the doctrine that a teacher can instruct twenty pupils just as well as one; for I well know that different pupils need different instruction. An explanation which is given rapidly enough to keep the attention of one pupil, will leave another all in a maze behind you; whilst that which is given slowly enough, and with sufficient detail and repetition for the second, will make the first impatient or listless. Still, there is great gain to those pupils which are near to each other in attainments and capacity from hearing each other recite, and to you from instructing them all at once, instead of individually.

Have a time for each exercise. On this I will add nothing.

Do not permit pupils to take too many studies. Time is frittered away and attention is dissipated by trying to carry along too many kinds of work at once. *A disciplined* mind finds it difficult to fix the attention at once on new works, and a child with half-a-dozen studies is not likely to have distinct notions of any. An editor of a book for beginners in Greek, recommended the pupil to have, when commencing, no other study, unless it were a light one to give relief by change.

Do not try to go over too much ground. One farmer tills a small piece of ground well, has heavy crops and gets rich; another goes with plough and scythe over a large farm, and having worked hard all summer, gleans a sparing harvest and is disheartened at the poor return for his labor. I confess I have some experience in failing of what I might do, from attempting too much. Do not allow a class or pupil to go over what they do not understand, because it is unpleasant to tell them of their deficiency, or through your own or their desire to go through a book. Progress is not measured by pages. Assign a short advance lesson for next time so that you may have time to complete this. Take nothing for granted. Consider it your chief business at recitation to find out if the pupil is ignorant of any point in the lesson. Let it be learned that recitation to you is something, both in rapidity and thoroughness. There is hardly an instance of a handsomer compliment than that paid to a medical examiner who, when he asked a candidate for a degree how he would give a sweat, received in answer, — "I would bring the patient before you, sir, for examination." Do not fear, from thorough questioning, the fate of that master who was discharged because he did not know anything, and only asked questions to learn something from the scholars.

Experienced teachers usually spend much more time on the elementary portions of books than beginners do. In arithmetic, to work numbers readily is the first considerable step for the learner. If the pupil whilst studying an example is burdened on account of his inability to perform the numerical operations easily, he cannot reason well upon it. We choose small numbers for illustrating an example in written arithmetic for this very reason. A boy who cannot work fractions easily, will fail *in his reasoning* if the example has fractional numbers, when he can tell the method of performing a similar example made of small whole numbers. Time is lost. A beginner will learn to add well much faster from tables in his book, or from columns on the board, which a class study to add to you in concert, than he will when stopping to think, whilst trying to perform an example. One thing at a time, if we would have anything done well. Many persons, from not having learned addition properly, often have to stop and think, or count, when they would add.

A child has not learned addition till 7+3 makes him think of of ten as readily as the numeral, 1, with a 0 following it (10) does. Nor has he learned multiplication till 7×3 is just as certain to make him think of twenty-one as the numeral, 2, with a 1 following it (21). Then to what a painful drudgery a boy is subjected who is at work in reduction with his fingers between the leaves at the table of long measure, and a multiplication table lying before him; or a girl in the middle of Colburn's First Lessons, counting her delicate fingers! Is it uncommon to find pupils ciphering in reduction when they dread to see a divisor larger than twelve? or having so hard work to get the figures right in decimals, that they have really no thought to bestow on the pointing?

The means of having all these things right is *drill*, and this takes time. Your pupils may think they are making but little progress, but distinct vision will come if you persevere; and when the book, in coming time, opens to those few worn pages, the pupil's mind will gladden with the thought that he there began to study arithmetic to some purpose.

I have spoken mostly of arithmetic, but the waste of time and the stupefying of intellect may be effected by going over other studies without understanding them, as well as this. Perhaps the evil occurs oftenest in grammar. The art of cross-questioning well is as important to a teacher as to a lawyer.

My space is nearly filled, but I am, in respect to what I proposed to say, very much in the condition of the man who, in making a book, found so much to write that he did not get beyond the introduction.

You know I think much of visiting the pupils' parents. Not doing this, you testify falsely as to the interest you take in the pupils' welfare, and lose much influence and coöperation.

I hope this winter's experience will be so pleasant that your desire to make teaching a permanent employment will increase. If you would improve in teaching, you must see what others do, read what others have written, and reflect on it till the grain is all your own. You must know other things too; you will be judged like other men by your intelligence. It has been often spoken, resolved and voted, that teaching is an honorable calling; but a man in any profession will, in the end, be honored for what he is, — for what he brings to the profession. The teacher must be intelligent that he may instruct his pupils well; and if he would be well received in society, he must contribute to society his proportion of improvement and pleasure.

As a substitute for what you may have expected from me, let me recommend for your perusal "Abbott's Teacher," to read now as you are about to enter on your new duties. If not the most profound of books, it certainly has a good spirit and is

highly suggestive. It was the pioneer to all that class of books, and sustains to them much the same relation that Colburn's Arithmetics do to all the improved books on that subject made since.

Your friend, P.

HISTORY IN WORDS.*

LANGUAGE has been called fossil poetry. Just as in some fossil, curious and beautiful shapes of vegetable or animal life, the graceful form, or the finely vertebrated lizard, such as have been extinct for thousands of years, are permanently bound up in the stone, and rescued from that perishing which would otherwise have been theirs; so in words are beautiful thoughts and images, the imagination and the feeling of past ages, of men long since in their graves, of men whose very names have perished, preserved and made safe forever. But, says Mr. Trench, the phrase "fossil poetry" is not sufficiently broad. Language is also fossil history, fossil philosophy, fossil art.

Perhaps there is no better example of a people's history being preserved in the changes which its language has undergone, than the mingling of the Norman and Saxon elements in our English. Mr. Trench says that a tolerably accurate and very instructive account of the relation in which the Saxon and Norman occupants of British soil stood to each other, may be obtained from the study of the words which they have bequeathed to us. "Nor, indeed, is it hard to see why the language must contain such instruction as this, when we a little realize to ourselves the stages by which it has come down to us in its present shape. There was a time when the languages which the Saxon and Norman spoke, existed each by the side of, but unmingled with, the other; one, that of the small dominant class, the other that of the great body of the people. By degrees, however, with the fusion of the two races, the two languages also fused into a third. There would exist duplicates for many things. But as in popular speech two words will not long exist side by side to designate the same thing, it became a question how the relative claims of the Saxon and Norman word should adjust themselves; which should remain, which should be dropped; or, if not dropped, should be transferred to some other object, or express some other relation. . . .

* THE STUDY OF WORDS.—Five lectures addressed to the pupils of the Diocesan Training School, Winchester. By R. C. Trench, B. D. &c. Fraser's Magazine.

Evidently, when a word was often on the lips of one race, its equivalent seldom on those of the other; where it intimately cohered with the manner of life of the one, was only remotely in contact with that of the other; where it laid strong hold on one, but slight on the other,—the issue could not be doubtful.

"The ultimate settling down of this fermentation of words,—the final deposit, as it were,— may be traced in the composite structure of the language transmitted to us from that stormy period. All our words of power and dignity, of state and honor, except king, come down to us from the Normans — 'sovereign, sceptre, throne, realm, royalty, homage, prince, duke, count, (earl is Scandinavian, though he must borrow his countess from the Norman,) chancellor, treasurer, palace, castle, hall, dome, and a multitude more. If on the one side, we have all the articles of luxury, and chivalry, and personal adornment from the Norman, we have the broad basis of language, and, therefore, the life of the people, from the Saxon.

"The great features of nature, the sun, the moon, the stars, the earth, the water, the fire, all the prime social relations, father, mother, husband, wife, son, daughter, these are Saxon. The palace and the castle may have come to us from the Norman, but to the Saxon we owe far dearer names, the home, the hearth, the house, the roof."

It is curious enough, says the reviewer in Fraser's Magazine, to follow out this train of comparisons. The instruments for cultivating the earth, and the main products of the earth, are Saxon. The names of the domestic animals are Saxon, so long as they are alive; but the moment they are dead, and dressed for table, they become translated into Norman, — a fact which we might have expected beforehand; for the Saxon hind had the charge and labor of tending and feeding them, but only that they might appear on the table of his Norman lord. The Saxon ox, steer and cow became converted into Norman beef; the Saxon calf, into Norman veal; Saxon sheep, into Norman mutton; and so on with swine, and pork, deer, venison, fowl and pullet, the single exception being in the case of bacon, the only flesh which may have come within the reach of the poor Saxon hind.

The history of a people's advancement or degradation is left in their words. As a people become degraded, their words are degraded to express lower ideas. A Caffre tribe had a word, "Morimo," to express "Him that is above" or, "Him that is in Heaven." With this word was associated their notion of a Supreme Being. When Moffat visited South Africa, the word had disappeared. Here and there was to be found a very old man who had heard it in his youth, but the word was then prac-

tically unknown in its primitive signification to the bulk of the people. But it survived in a new sense ; and its new use indicated the changed condition of the population. Instead of representing to the imagination of the Bechuanas a Divine Being, it was retained among the rain-makers and sorcerers, to signify a sort of monstrous ghost. As their notion of a Divine Being had been changed or lost, the signification of the word had experienced the same change.

In relation to the Italian modern use of the word " virtuoso," Mr. Trench exclaims :— No wonder that the Italians have supplied such beautiful statues and sculptured to our great Exhibition, when they have degraded the word "virtuoso," or " the virtuous," to signify, one accomplished in painting, music and sculpture, things which are the ornamental fringe of our life, but can never be made, without loss of all manliness of character, its main texture and woof,— not to say that excellence in these fine arts has been in too many cases divorced from all true virtue and worth.

Thus on the word " cicerone," —

" How little the modern Italians live in the spirit of the ancient worthies, or reverence the greatest among them, we may argue from the fact that they have been content to take the name of one among their noblest, and degrade it so far that every glib and loquacious hireling who shows strangers about their picture galleries and palaces of ruins, is termed by them a ' Cicerone,' or Cicero."

We make one more extract, and we do it for the facts rather than for the argument of the author ; for, before the degradation of these words is taken as proof of the degeneracy of the people, it must be proved that no other words were in use to denote the vices for which these words have been " dragged down."

" How many words men have dragged downwards with themselves, and made partakers, more or less, of their own fall. Having originally an honorable signification, they have yet, with the deterioration and degeneration of those that used them, deteriorated and degenerated too. What a multitude of words, originally harmless, have assumed a harmful as their secondary meaning ; how many worthy have acquired an unworthy. Thus, ' knave ' meant once no more than a lad ; ' villain ' than peasant ; a ' boor ' was only a farmer ; a ' churl ' but a strong fellow. Timeserver was used two hundred years ago quite as often for one in an honorable as in a dishonorable sense, ' serving the time.' There was a time when ' conceits ' had nothing conceited in them ; ' officious ' had reference to offices of kindness, not of busy meddling ; ' moody ' was that which pertained to a man's mood, without any gloom or sullenness implied ;

'demure,' of good manners, conveyed no hint, as it does now, of an overdoing of the outward demonstrations of modesty; in 'crafty' and 'cunning' there was nothing of crooked wisdom implied, but only knowledge and skill."

The following shows how words depart from their primitive signification, and how imperfect a guide etymology is to the present meaning and use of words.

"It is no necessity that a word should always be considered to root itself in its etymology, and to draw its life-blood from thence. It may so detach itself from this as to have a right to be regarded independently of it. Thus it was a piece of ethical prudery, and an ignorance of the laws which govern the formation and use of words in the early Quakers, when they refused to employ the names commonly given to the days of the week, and substituted for these, 'first day,' 'second day,' and so on; and this on the ground that it became not Christian men to give so much sanction to idolatry, as was involved in Monday, Tuesday, and Wednesday; as though every time they spoke of Wednesday, they would be doing some honor to Woden; of Thursday, to Thor; and of Friday, to Freya; and thus with the rest. But these names of the days of the week had long left their etymologies behind, and quite disengaged themselves from them. Nor, had these precisions in speech been consistent, could they have stopped where they did;—every new acquaintance with the derivation or primary use of words would have brought them into new embarrassment,—would have required them still further to purge their speech. To 'charm, to fascinate, to enchant,' would have been no longer lawful words for those who had outlived the belief in magic; nor 'lunacy' nor 'lunatic,' for such as did not believe that the moon had anything to do with mental unsoundness."

The word "pagan," from pagus, a village, was applied to the villagers, since they did not receive Christianity so soon as the cities and centres of intelligence.

"What a record of inventions lies in the names which so many articles bear, of the place from which they first came, or the person by whom they were invented! The 'bayonet' tells us that it was first made at Bayonne; 'cambrics,' that they came from Cambray; 'damasks,' from Damascus; 'arras,' from the city of that name; 'cordwain,' from Cordova; 'currants,' from Corinth; the 'guinea,' that it was originally coined out of gold brought from the African coast, so called. Such, indeed, is the manufacturing progress of England, that we now send out calicoes and muslins to India and the East; yet the words give standing witness that we once imported them from thence; for 'calico' is from Calicut, and 'muslin' from Moussul, a city in Asiatic Turkey."

Concerning phonetic spelling our author speaks as follows:—

"A deep and serious evil is, that in innumerable instances, it would obliterate altogether those clear marks of birth and parentage which, if not all, yet so many of our words bear now upon their very fronts, or are ready upon a very slight interrogation to declare to us. Words have now an ancestry; and the ancestry of words, as of men, is often a very noble part of them, making them capable of great things, because those from whom they were derived have done great things before them. Words are now a nation, grouped into families, some smaller, some larger;—this change will go far to reduce them to a wild and barbarous horde."

SOME TALK ABOUT TREES.

Of all the beautiful and wonderful natural objects by which we are surrounded, few seem to be more pleasant and profitable subjects of study, than our Forest Trees.

They should be studied for many reasons: to ascertain the best means of preserving and improving our forests, to learn their effects upon climates and soils, their uses in the arts, and their innumerable contributions to the wealth of the country; for their beauty, and still more, because I would strive to awaken an activity in the minds of men so that they should not passively live, with closed eyes, amidst the beautiful, be sheltered, warmed and fed, unknowing and unthoughtful of the wonderful means by which the materials for supplying their needs are produced.

Long before the children are old enough to commence the study of Botany as a science, mastering its nice distinctions and the nomenclature which records them, they may be made familiar with the forms, uses and characteristic beauties of many classes of plants.

I would not have this done by stated lessons from book or teacher so much as by the use of their own powers of observation, awakened and properly directed.

The tree under which they play at recess may furnish the first lesson. Suppose it to be a large and beautiful elm. Inquire if any child knows how long it has been in growing to its present size; how long elms continue to grow; what is the home of this class of trees; and when in this way you have shown them that here is a field of knowledge, very near but still unknown to them, tell some interesting things which they may not have the means of ascertaining, and propose other questions, which with

a little painstaking, they can prepare themselves to answer at some future time, and a spirit of inquiry will be awakened, which will only require willingness, skill and knowledge, on the part of the teacher, to direct to most interesting results.

In all such exercises, let the teacher's first aim be, to make the children do all that is possible,— their interest will be found to be in proportion to the amount they are able to contribute. For instance, instead of telling them that the elm is considered one of the most graceful of trees, I would ask them to look in the interval before your next talk upon this subject, and decide which of all the trees they see is the prettiest. Then I would induce them to give me some idea of its form, shape of leaves, &c. Still farther to exercise their perceptive faculties, instead of telling them that the American elm assumes many very beautiful shapes, of which three are the most striking, I would send, or, what is better, take them to some place where they might discover for themselves the fact. Where the primeval forest has been cut away, and elms alone left standing, it is common to see trees with a single trunk, or two or three parallel ones stretching up to the height of 70 or 100 feet, and then spreading out into light feathery plumes. Sometimes these trunks are wreathed to the very ground with verdure. Some at a distance strongly resemble oaks, broad and round-headed. Such is the large elm on Boston Common. The third and most beautiful form, is that of the tall Etruscan vase, formed by the separation of four or five branches twenty or thirty feet from the ground, then gradually spreading to the height of sixty or seventy feet, and then suddenly breaking outward, forming a flat top with a beautiful fringed border. A splendid specimen of this kind may be seen beside the gate of the botanical garden in Cambridge. The slippery elm is found abundantly in the western part of the State, rather sparingly in the eastern. It cannot be mistaken for the white elm, for it is much smaller, its branches are less drooping, its leaves are very rough, and its old stems of a purple hue.

The English elm is very frequently seen in the eastern part of the State. It is very large, but stouter and less graceful than the native species. Its leaves are of a darker color, smaller, and more numerous. A wheelwright is said to have introduced it here. He desired the wood for hubs of wheels, for which use it is much esteemed ; but it is not used in building either houses or ships, because it is easily destroyed by insects.

Elms are natives of the North Temperate Zones of both the old and the new world. In America they extend from Hudson's Bay to Georgia. They will grow in almost any soil, but attain their greatest height upon the moist, rich ground beside rivers. There are many in the State more than 100 feet high.

Some have been supposed to grow to this height in a century. They live perhaps one hundred and fifty or two hundred years. In general they do not reach so magnificent a size in this country as in England.

Perhaps it would be most interesting, next to take some trees in strong contrast to the elms, as some of the evergreens, and notice their difference in form, leaves, flowers, and fruit; the various countries in which they grow, the greater altitude at which they can live, and their various economical uses.

Outlining the leaves of different trees, gives easy and excellent practice in the useful, but too much neglected art of drawing, and is the best means of impressing their forms upon the mind. The white oak, with its acorn, will be distinguished even by quite young children from the black, chestnut, or scarlet oaks and their fruit. Children should be encouraged to seek for specimens of seeds, so that they may gain a more vivid impression of the manner in which they grow. Let them plant various kinds, and observe the different times required by each for germination, and the different forms the young plants assume.

There is no end to this field of inquiry. New beauties are disclosed at every advance, which entice the learner to risk another step, though it seems difficult.

All striking changes, such as that of color in the autumn, should be improved in their season. See if the children recognize their old friends in their new splendors. Direct their attention to the changes from day to day, and try to have them perceive the countless shades of coloring. Then the causes of the phenomena are not half so difficult of comprehension, as many things children are expected to learn. So of the fall of the leaf, leaving no wound upon the limb on which it grew; the swelling of the buds, which soon succeeds; the thousand arrangements for their protection from cold during winter; their unfolding in the warm spring sun, a change so speedily effected even in our temperate climate, as to make hourly observations interesting.

These pleasant lessons are written on the outermost leaves of the book of Nature, in characters so plain, that he who looks may read; and yet how few know anything about them. Let it not continue to be so. Teachers in the country may without any perceptible expenditure of time teach these things, and much may be easily done by those in cities.

The habits of observation which such a course cannot fail to form, will be an excellent preparation for those accurate and long-continued researches, which are requisite for the learned naturalist. And if your pupil should not choose to be a devotee of science, his truer eye and more refined taste will show them-

selves even in mechanical operations; if a poet, he will make more striking pictures; if a painter, he will make truer and more graceful ones; and if he be neither singer nor limner, he will have tenfold more pleasure in whatever is beautiful from the pen and the pencil of others.

THE THREE ACTS OF MEMORY, RECEPTION, RETENTION, AND COMMUNICATION.*

Down in the dominions of the Mind, in a pleasant cottage adorned with the flowers of pleasure, sat Memory and her three daughters, Reception, Retention, and Communication; and, although we do not approve of eaves-dropping, we will for once indulge in it, and listen to the conversation of the inmates.

The eldest, Reception, seems to be taking advantage of the rule that the eldest should be served first, as she seems to be the leader in the conversation, and I distinctly hear her saying, "Ah! my sisters, I think that I am a vast deal more help to mother than either of you, and I can prove it too! for this very day I have added to our store new gems of thought. All the beautiful articles with which our house is adorned, and which make it the admiration of all who tarry with us, were obtained by me. Many of them are merely ornamental, to be sure, such as scraps of poetry, the favorite measures of a song, and other things obtained with little labor, for they are often presents, but still they contribute to our happiness. But there are the more necessary and costly articles of furniture that were obtained by me with great and unceasing labor. There is that great amount of knowledge in Geometry, that difficult solution in Algebra, those two hundred lines in Virgil, and that French verb 'Avoir.' Which of you will say that I am not of the most benefit to our mother in enlarging and enriching our stores?"

"I will admit," says Retention, "that all you have said is true; but, my dear sister, you forget that without me all your labor would be worthless. If I had not kept a strict watch about the house and premises, where would have been all the beautiful and desirable things of which you have spoken? It was only this very day that that thief, Forgetfulness, was going to take from us that beautiful extract from Pope, 'Lo! the poor Indian,' and it was only by a firm grasp that I was able to retain it; and the same is true of the more costly and necessary articles you mentioned,—the examples and principles in Algebra,

*A School Composition.

the propositions in Geometry; it is only by a strict guard that I can keep them, and if it were not for this effort of mine, what would all *your* labor be worth?"

"But," says Communication, "does it constitute our happiness that the store is *obtained* and *retained?* Does not much of our enjoyment arise from letting it be known that all these things are in our possession, and from sharing them with others? It is *I* that bring the fame—the glory. It is by me that people become acquainted with our wealth and hold us in esteem; and the pleasure we all derive from giving is wholly due to me. It was only this very day that I gave to a poor youth, thirsting for knowledge, that Greek verb that we had treasured up; and oh! my sister Reception, if you had seen the smiles that lit up his face, you would have said, truly, it is far more blessed to give than to receive."

"But," says the mild and pleasant voice of Memory, "my dear children, you are all equally essential to my happiness. Deprived of any one of you I should be miserable; and I wish that each of you should prize the others. You are sisters. It were better that you were discharging your several duties than holding such a conversation; and, hereafter, by discharging them faithfully and cheerfully, never thinking of your comparative worth or uselessness, you will best deserve and secure your mother's approbation."

Resident Editors' Table.

GEORGE ALLEN, Jr., ... *Boston,*
C. J. CAPEN, ... *Dedham,*
} Resident Editors. {
JOHN D. PHILBRICK, *Boston,*
D. B. HAGAR, ... *W. Roxbury.*

EXAMINATION OF CANDIDATES FOR THE ENGLISH HIGH SCHOOL, IN BOSTON.

For the last three months, this seems to have been quite a favorite theme among gentlemen of the newspaper quill. Scarcely had the first examination closed, when some of these curators of the public weal, having learned that a considerable number of the candidates were sent home without their certificates of admission, on this basis forthwith assumed as a fixed fact, with an air of infallibility worthy of the pontifical robes, that the Grammar Schools were sadly deficient, and quite behind the times. This sage conclusion, drawn from the resources of a prolific imagination, served as a text to hang such misrepresentations of the Public Schools upon, as the learned commentators were disposed to fabricate. By what motives these writers

were actuated, we shall not pretend to decide. We charitably presume them to be honest. They probably conveyed false impressions, in consequence of their own ignorance of the subject upon which they undertook the benevolent task of enlightening the public. If they are as ignorant of all the subjects they undertake to handle, they would make a worse figure at an examination, than the most unfortunate of the lads who were "rejected."

The effect of the paragraphs to which we allude, has been to injure the good name of our schools abroad, and excite a prejudice against them at home.

But the full Report of the Committee on the High School, which is before us, sets the whole matter in its true light. As an act of simple justice, those papers which were so swift to condemn and execute without judge or jury, ought to publish this document entire. After exhibiting the questions used in the examination, and the method of proceeding, with regard to the result, the Committee say,—"The result might have been fairly stated in the papers as follows:—'At the recent examination for admission to the English High School, 113 candidates offered themselves; of these, 101 were admitted.' This would have been, as the result shows, a more correct statement than the one made—that about one half the candidates were rejected. They were not rejected. Fifty-two were conditioned on one or more studies, and of these thirty-seven offered themselves for a second examination, and on that examination twenty-eight of them were admitted. The whole number offering themselves at both examinations was 116; but of those who were conditioned at the first examination, fifteen did not present themselves at the second. So that the whole number of those who embraced every opportunity for admission to the School, was but 101, and of these, 91 were admitted. The result thus stated, does not in itself make out a strong case against the Schools from which the candidates came." P.

A NORMAL SCHOOL IN BERKSHIRE.

At the late session of the Berkshire County Teachers' Association, a committee was appointed to prepare a Memorial, addressed to the Board of Education, on the subject of establishing a Normal School in that county. The committee have promptly attended to their duty, and we have received from the Chairman, Jonathan Tenney, Esq., of Pittsfield, a copy of the Memorial. It presents a strong array of facts in favor of the establishment of such a school in that section of the State.

We wish this enterprise success. That it will eventually succeed we have no doubt. It would be well to have a Normal School in nearly every county to train teachers for common district schools, and besides these, another one of a higher grade, centrally located, where teachers might qualify themselves for the highest grade of instruction provided for by the law of the Commonwealth.

There is a great demand at present for female teachers capable of instructing in the higher departments. A new institution, or a modification of those now in operation, is needed to fit them for such situations.

HOW TO MAKE CHILDREN READ SLOWLY.

THE following plan for checking the speed of those pupils who have acquired the habit of reading by the page against time, has the recommendation of having been successful.

Ask the pupil to look at as many words as, from their connection, he thinks it desirable to speak without a pause; then ask him to look from the book to you and speak them. After this, let him look on the page for the next phrase, or proposition, or so much as should be spoken without any pause, and again look up to you and speak it. Continue this through the paragraph; and then let the pupil read the same from the book, taking care to make the same pauses as before. The habit will be broken up before many days have passed.

Most persons have observed that, in animated speech, the speaker enunciates at once and with considerable rapidity, so much as the mind well receives at once; after which, follows a pause more or less protracted, according to the importance of what has been uttered. The method we have spoken of above, no doubt originated from observing this fact.

MISCELLANEOUS.

Will the truth of the following be called in question?

Necessity has no law, and expedience is often one form of necessity. It is no principle with sensible men, of whatever cast of opinion, to do always what is abstractedly best. Where no direct duty forbids, we may be obliged to do, as being best under the circumstances, what we murmur and rise against while we do it. We see that to attempt more, is to effect less; that we must accept so much, or gain nothing; and so, perforce, we reconcile ourselves to what we would have far otherwise if we could. What is only second best is best practically, because what is actually best is out of the question.

WEST ROXUBURY THE BANNER TOWN.

It is believed that this town stands at the head in this Commonwealth, in the matter of liberality in the compensation of teachers. Recently, Miss Breed, who has charge of the female department of one of the Grammar Schools in this enterprising village, was offered the place of first assistant in the Boston Normal School, with the salary of $600 a year, but her salary was immediately raised high enough to retain her services. The two principals of Grammar Schools receive $1000 and $900 respectively, and the Principal and Assistant in the High School, receive $1200 and $800 respectively. The natural consequence of this enlightened policy is that the schools in this town are of the highest order.

"It was the boast of Cicero that his philosophical studies had never interfered with the services he owed the republic; and that he had only dedicated to them the hours which others gave to their walks, their repasts, and their pleasures. Looking on his voluminous labors, we are surprised at this observation; how honorable it is to him, that his various philosophical works bear the titles of the different villas he possessed; which shows they were composed in their respective retirements. Cicero must have been an early riser, and must have practised that magic art of employing his time so as to multiply his days."

We commend the perusal of this paragraph to those teachers who do not take an educational journal because they *cannot find time to read it!*

PERSONAL ITEMS.

Hon. Henry Barnard, Superintendent of the Public Schools of Connecticut, has returned from his European tour. He was compelled to go abroad in search of health, and his numerous friends will be gratified to learn that he returns to his post, refreshed and invigorated by his travels. Nor is this all. He brings back with him a mass of valuable information respecting the methods and systems of public instruction in Europe, which it is expected he will soon give to the public through the press. *His work on Normal Schools ought to be in every teacher's hands.* Certainly, no teacher should make any pretension to a professional library without it.

Rev. T. D. P. Stone has resigned his place as Principal of the Connecticut State Normal School.

Miss M. J. Tarr, late teacher in the Franklin School, Boston, and a graduate of the Normal School at West Newton, has been appointed third Assistant in the Boston Normal School. Salary, $400 a year.

William J. Rolfe, Esq., late Preceptor of Day's Academy in Wrentham, has been elected Principal of the High School in Dorchester. Salary, $1,000.

PUBLICATIONS.

An Analytical and Practical Grammar of the English Language. By Rev. Peter Bullions, D. D., late Professor of Languages in the Albany Academy, and author of the series of grammars, Greek, Latin, and English, on the same plan, &c. 17th edition, New York: Published by Pratt, Woodford, & Co. 1852. This Grammar has been recently introduced as a textbook into the Public Schools of Boston.

The Common School Writing-Book. By O. G. Badlam. Published by Robert B. Collins, N. Y. This system embraces eight books. Its chief peculiarity consists in *light* lined letters for tracing.

The Pennsylvania School Journal, edited by Hon. Thomas H. Burrowes, and published at Lancaster, at $1.00 a year. We consider this a very valuable publication. The leading article in the October number is full of valuable suggestions. It affords evidence that the editor is a sound, practical educator.

"TRANSACTIONS OF THE MASSACHUSETTS TEACHERS' ASSOCIATION."

This work has appeared, and can be obtained of the publisher, Mr. Samuel Coolidge, at the office of the "Massachusetts Teacher," No. 16 Devonshire Street, Boston. It presents a neat appearance, and contains three hundred pages, 12mo.

The Lectures, which take up about four-fifths of the entire volume, are upon a variety of subjects, all of which are of interest to the teacher, and are ably and practically treated of by the respective authors. Their intrinsic excellence will immediately entitle them to authority in matters of education, and, under this belief, a copious index has been supplied.

Without disparagement to other portions of the work, we may say that the lecture on the "Management of the School-

room" is itself worth the price of the volume, and as a manual for teachers and pupils, if its teachings are carried out in practice, (and they have been,) will prove invaluable to both.

We trust that teachers, although as a class too poorly paid to allow them to buy such educational works as are absolutely needed for reference and study, will, nevertheless, on examining this work, feel that it is indispensable, and will place it *first* on their list of books to be purchased.

It can be obtained, in excellent style for the library, bound in cloth, *at the extremely low price of* 50 *cents*. This will be accounted for, when it is understood that the Association has drawn on its funds, in order partly to defray the expenses of publication, and bring it within the reach of every teacher.

C.

NORFOLK COUNTY TEACHERS' ASSOCIATION.

Its next meeting will be held in Dedham, on Thursday and Friday, the 23d and 24th of this month.

CHAS. J. CAPEN,
Secretary.

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EDUCATIONAL DEPARTMENT.....NO. 2.

THE MASSACHUSETTS TEACHER....EXTRA.

SAMUEL COOLIDGE, Publisher.] BOSTON, MARCH, 1852. [16 Devonshire Street.

FIFTEENTH ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD OF EDUCATION.

To the Board of Education.

GENTLEMEN:—Having in previous Reports discussed various topics connected with the general management of the Public Schools, I design, in the present, to call attention to the subject of INSTRUCTION. Great progress has been made, by most of the cities and towns of the Commonwealth, in the amount of money raised for education, in the commodiousness and elegance of schoolhouses, and in qualifications and permanency of teachers. Everything, indeed, relating to the support, policy, and supervision of the schools, bears evident marks of improvement. On the part of teachers, increased attention has been paid to the necessity of adapting their instruction to the capacities of their pupils. Text-books have been simplified. Apparatus for illustration has been more generally introduced. On the part of the people, both committees and parents have interested themselves much more than formerly in the daily routine of the school-room, especially in regard to regularity of attendance. But, notwithstanding all this, not a little yet remains to be accomplished before the people of the Commonwealth ought to be satisfied with the means of instruction provided for their children. There is still, in the majority of the schools, a needless waste of time and money. Among the many improvements in education required by the public good, none seems more necessary, at the present time, than improvement in the methods of instruction.

In order to effect completely a change so desirable and so salutary, many points, liable to be overlooked, must be attentively considered by teachers and school committees. The number of branches taught must be reduced and restricted to those things which are fundamental; and narrower bounds must be set to the surface over which instruction is extended in each. The reasoning faculties of children must not be so prematurely and disproportionately taxed. The memory must be less encumbered with definitions and formulas which the child cannot understand. The synthetic method of instruction must yield somewhat, and give more place to the analytic. Facts and phenomena, adapted to the capacities of the young, and addressed to the senses and imagination, must precede and prepare the way for the contemplation of abstract principles. The order of studies must be arranged with reference to the order in which the mental faculties are developed not less than to the logical dependence of one branch of study upon another. A given amount of knowledge, as the highest object of education, must be abandoned, and the spirit and habits of acquisition by just methods, and the general tone of the moral sentiments and of the whole character, substituted in its place.

A complete view of a subject so extensive, cannot be attempted in this Report. All that can here be undertaken is to select, for more particular remark, such errors and mistakes as are highly injurious in their influence, and present them in connection with the appropriate remedies; and to append a general view of the course of study and of the method of instruction adapted to the lower schools.

It may not be improper to begin our observations with an examination of certain vague ideas which are carelessly entertained, and yet have sufficient efficacy to be highly detrimental to the schools. Many seem to suppose, if their opinions may fairly be inferred from their actions, that the whole duty of the teacher is to instruct his pupils in "the common branches," as they are usually termed, and to maintain so much discipline as is

necessary to that end. But every man of reflection will perceive that this platform is altogether too narrow; that neither the individual nor the community can realize the benefits of a true education if the Public Schools are conducted simply on this plan. In order to answer its purpose, any system of popular education must embrace, in addition to those branches, the cultivation of the manners, of the private and social virtues, and of the religious sentiment. The most perfect development of the mind, no less than the order of the school and the stability of society, demands a religious education. Massachusetts may be regarded as having settled, at least for herself, this great question of the connection of religion with the Public Schools. She holds that religion is the highest and noblest possession of the mind, and is conducive to all the true interests of man and of society, and therefore she cannot do otherwise than to seek to place her schools under its beneficent influence. The constitution and laws of the Commonwealth enjoin it upon teachers to inculcate piety and Christian morals, love to God and love to man. But the government does not in this, nor in any other instance, regard religion as one of the legitimate ends of its own organization. The maintenance and propagation of the Christian faith it very properly leaves to ecclesiastical bodies. It employs religion only as a means of its own security and prosperity, and even then only so far as it can do so without violating the rights of conscience. What it needs for its own safety and well-being is the spirit of the decalogue as expounded by the Great Teacher of mankind, while varying creeds, which are so much in controversy, are not indispensable as a means of public education, especially in a country where such ample opportunities exist for peculiar doctrinal instruction in other ways. Each family has, or may have, its religious tenets inculcated around its own fireside. It has also access to a Sabbath school of its own faith, or at least of its own choice; and may, moreover, always enjoy instruction from the pulpit in accordance with its own preferences. In the exclusion of distinctive creeds from the schools, religious persons, of almost every name, are singularly agreed, and thus we have the sentiment of the people at large in support of the law as it now stands.

The formation of a virtuous character is the natural result of a right religious training. Still, as the principles of religious and moral truth may be taught without producing a corresponding character, it is more important for the teacher to lead his pupils to the practice of virtue than it is to instruct them in the theory of it. The school furnishes peculiar facilities for cultivating all the social virtues. Though the family may be regarded as the primary society where the principles of government are first taught and exemplified, there are many important lessons to be learned preparatory to general society, for the inculcation and practice of which the school presents more frequent occasion than the family. The number of persons associated together is greater in the former than in the latter; social equality is more perfect; and the application of the principles of justice in regulating the little community is made more conspicuous. The authority of the teacher is less permanent and absolute than that of the parent. As the number of persons and the variety of character and dispositions increase, the machinery of government becomes more complicated. Beside the multitude of questions of equity which arise within the organization of the school, there are others growing out of peculiar external relations, as those of the school to the family, to the committee, to the children not belonging to the school, and to the citizens at large. Here is ample scope for the exercise of all the social virtues; and the teacher, who, while governing the school, aims at training his pupils to an intelligent view and voluntary discharge of all their duties, will find that his office invests him with an almost unlimited power for expanding and ennobling the character of the young. The comprehension of all such relations as those above-named, and the application of just principles in regulating the conduct in each of them, are among the most appropriate and most important ends to be attained in the Public Schools. It is not enough to teach the rudiments of knowledge and to govern the school for the time being. The mind is to be educated for freedom by gradual growth in both knowledge and virtue, which shall render liberty safe by causing a voluntary self-control, and submission to rightful authority.

Manners are to be regarded as a necessary accompaniment to morals. Indeed, there is no natural line of division between the two. They are related to each other as thought and expression are, and should be cultivated together. In the immature state of our society as compared with that of the old world, and in the engrossment of the general mind with enterprises for the accumulation of wealth, it is not strange that there should be some want of refinement, and that the national manners should, to cultivated Europeans, appear

somewhat unpolished. But the time has now arrived when it is not so easy as it once was to apologize for these defects. Such are now our means of intellectual culture and improvement in all that adorns human nature and society, that it is inexcusable longer to allow this blemish to adhere to us as a people. It is in the power of the Public Schools to change the whole aspect of society in this respect. They can be made to act simultaneously upon every family in the Commonwealth. While refined manners would otherwise long continue to be limited mostly to certain favored circles, they might easily, by means of an improvement in our system of education, be made a blessing and an ornament to all classes in the community. Why should not the same hand that deals out knowledge indiscriminately to all the children of the Commonwealth, aim to engraft as universally upon the manners of all these children the amenities and courtesies of life? Let but the school committees select their teachers and inspect their schools with reference to this object, and a change would come over the manners of the young which would add a new charm to society. The erection of new and beautiful schoolhouses, and the introduction of neat and elegant furniture, have greatly facilitated the task of the teacher in regulating the intercourse and personal habits of his pupils. In a free republic like ours, where children have, of late, been becoming more republican than their seniors, parents would do well to second the efforts of teachers in training the young to that deferential deportment, and to those common civilities, the absence of which can never be noticed but with grief.

Another popular opinion, prejudicial to the interests of the schools, relates to practical education; and requires that it be conducted with special reference to the future occupation of the pupil. Nothing can be more crude than the notions often put forth on this subject. Of those things necessary to be known and practised in common life, scarcely one is adapted to the school-room. The mechanic and other useful arts must be learned in those particular places where they are practised. There are no proper materials or arrangements for teaching them in the schools, nor is it desirable that there should be. These are not the subjects in respect to which the parent needs the aid of the teacher. He can teach the knowledge of his own business or cause others to teach theirs to his children better than it can be done in the school. Any attempt to render the schools more practical by making them industrial establishments, will tend only to divert them from their true office without accomplishing any important object. There are only two appropriate ways of obtaining the practical education referred to; the one is by something of the nature of an apprenticeship, and the other by attending a regular technical or practical school. In such an institution nothing but the application of science to the arts can properly be taught. A knowledge of the elementary principles of science, not to mention the common branches of education, must precede and be acquired in a preparatory school, else the technical school will be degraded, and its professors will be compelled to do the work of mere tutors. To talk of a practical school, where the rules of art without its principles are taught, is idle. A workshop or a farm would be better than such a school. In this sense, it is to be hoped our Common Schools will never become practical. How, then, can the elementary schools be made practical? By rendering them strictly elementary; by developing the mind and furnishing it with the instruments of general knowledge; by giving power to the intellect which it can skilfully wield in any direction, and apply to any purpose. The man must precede the artisan. The knowledge common to all persons of ordinary education should go before that which is peculiar to any trade or profession. It follows that all children need essentially the same elementary education. We cannot foresee what will be the occupation or condition of the child on reaching his maturity, and cannot therefore safely descend to specialities in his education. Time must develop the order of his talents, and circumstances must determine the sphere of his duties. Meanwhile his education should be such as to fit him equally for any of the ordinary situations of life.

It is a very common error to regard education as consisting chiefly in the acquisition of knowledge. Persons who entertain this view generally estimate knowledge by its extent rather than by its depth. If we look into the schools where education is conducted on such a principle—and it would not be difficult to find them—we shall see the pupils laboring to store the memory with an immense mass of words and sentences, which are to them often little better than the words of a dead language, or of facts without understanding their nature, relations, or uses. The minds of such persons are like furniture rooms,

crammed with articles without utility or order. The acquisitions made are not deeply fixed in the mind. The objects presented to view leave no distinct picture on the imagination. They are not compared, classified and arranged into a system by the intellect of the pupil, and consequently the memory holds them by a slight tenure. Knowledge thus acquired is too superficial to deserve the name, and rather injures than improves the mind. The habit of taking up with first impressions and specious appearances, of allowing loose and inaccurate ideas to float in the mind, is most pernicious in its influences. It tends to weaken the understanding, to destroy its soundness and integrity, and to render it incapable of those decisive and sure acts which are necessary to command reliance. What is chiefly to be aimed at in training this faculty is to give it power and precision, so that it may be both effective and safe in its operations. Such a result can be produced only by patient, exact, and thorough training. Mental discipline is a primary object of education to which the acquisition of knowledge is but secondary. The latter is, in this stage of study, chiefly important as a means of intellectual training, having at the same time a true but subordinate value in itself. Extensive knowledge is not necessary to mental discipline. A little that is well known and thoroughly digested is vastly superior in worth to a great amount hastily and superficially acquired. Not only is its effect upon the mind better, but its value as an instrument of future acquisition is greater. If elementary knowledge be of a faulty character, all that higher knowledge which depends upon it will be equally so. The principle here laid down will appear the more important, if we consider that its influence is not limited to the elementary schools, but extends to all our higher institutions of learning. The weakest point in the whole system of American education, is its deficiency in thoroughness in all the elementary courses. The students in our colleges need twice as much preparatory study as they now have. In our academies, pupils enter upon the study of the ancient languages with a defective English education. And it will be found, upon examination, that the whole superstructure of our higher education is insecure in consequence of the slender foundation laid in the elementary schools. The evil spreads from the root of the tree to all its branches, and can be effectually arrested only where it originates. Until the time of study can be greatly increased in our schools, the course of instruction ought to be restricted within narrower limits. Not only should the number of branches be diminished, but, (as has been already remarked,) the extent to which each is pursued should be curtailed. It is of but little use to proceed far, in studies, in the confused and superficial way which is now so common. If the plan be well laid out, and the studies be properly arranged, the more labor there is bestowed upon the elementary part of each, the better will it be for the future progress of the learner. Beside the impossibility of doing well all that is ordinarily attempted, many of the subjects presented are not truly of an elementary nature, and may, on that account, better be postponed. Requiring as they do a certain amount of preparatory knowledge, and of maturity of judgment in order to be understood, they fail of their object when prematurely introduced, and lose, perhaps forever, by being improperly used, the power of creating interest in the mind. It matters not how important and useful in themselves these higher studies may be. They may be more advantageously pursued at a future time. At present, something more radical is required, namely, the power of acquisition. Though elementary knowledge be limited, if it be well chosen, and used chiefly as a means of intellectual training, it will constitute a solid basis, on which the acquisitions of a whole life may safely rest. If every exercise in the school were such in its disciplinary character that it might serve as a pattern to be copied in all the remaining studies and business of life, this one feature in a system of education would be so valuable that, in comparison with it, all the ostentatious attainments made without method or discipline would be of little account. Habits of order, of accuracy and thoroughness, lie at the foundation of all success in business no less than in scholarship. This building up of the solid frame-work of the mind, giving it capacity and aptitude for vigorous and systematic action, is a principal object of education. A contrary course impairs the strength of the intellect, weakens the whole foundation of character, begets disgust with intellectual effort, leads to sciolism and conceit, and produces just such a character as it is the business of true education to guard against.

Among the faults observable in the mode of teaching in the Common Schools, that of attaching more importance to words than to things is conspicuous. The true method is just the reverse of this. Not only should the latter be made much more prominent than the former, but it should come first in the order of time. Objects stand related to signs or sym-

bols as substance to shadow. Language itself should, as far as possible, be studied from an inner point of view, beginning with the thought, and thence proceeding to its expression as from cause to effect; or, to speak more definitely, the words of the author should set the understanding and imagination of the pupil at work upon the objects or ideas represented, and these, when truly and vividly conceived, should give to the words employed their more precise import in the connection. In this way language will be learned, as it is in common speech, by usage. It will then be strictly vernacular; whereas that which is learned merely from the dictionary is in some sense a dead language. But I refer to something that lies deeper than this. Teachers do not duly consider what a wide difference there is between the abstract view of the author and the more concrete and life-like view of the pupil; — between the learned terms and artificial style of the one, and the familiar words and easy, simple language of the other. The consequence is, that the language of the book, though committed to memory and repeated paragraph after paragraph, remains a dead letter. The instructor, feeling no difficulty himself in understanding the words and constructions used, and not putting himself sufficiently in the position of the child, takes it for granted that the latter understands all except a few unusual or technical terms, and thinks he reaches the intellect, when in fact half that is learned is only by the mechanical act of putting syllables rightly together, and the equally mechanical act of retaining them in the the memory. In hundreds of schools the knowledge of classes in respect to the ideas of the language they repeat has been tested; and the result has astonished none more than it has the teachers themselves. In most cases a full knowledge of the facts would lead to the proper remedy. But in some instances, the practice of committing to memory learned phrases and abstract rules and definitions without understanding them, is defended on the ground that the time will come when the language will be understood. Suppose all this to be true; it would not follow that the course is a judicious one. What use can the pupil *now* make of ideas, that are as yet unborn? If one of the most important objects of education is mental discipline, and, if this can result only from exercising the understanding, I see not how that end can be attained but by apprehending the ideas which the language of the lesson was designed to convey. A course of instruction, to be useful, must be so given that one step in its successive stages shall be preparatory to another. What becomes of this linking together of all the parts, each depending on its predecessor, if the comprehension of any part is to be postponed to a future period? If the lesson of one day depends on that of the day preceding, then the former cannot be successfully studied till the latter be well understood. The truth is, the text-book cannot do the work of the teacher. It may aid him; but he will still have more to do with the subject than with the author. He will need to pay chief regard to the pupil's attainments and mental activity, and aim at evolving new ideas from those already possessed. In order to this, the language employed must be conformed to the ideas entertained by the learner. At first, only a very general idea, an outline, so to speak, of the subject in hand is apprehended, for the designation of which familiar and popular language is best adapted. It is sometimes necessary to conform, for a little time, not only to children's habits of thought, but to their vocabulary also. As their ideas become more definite by the addition of minuter details to the outlines of the picture previously formed in the mind, there will be a demand for greater precision in terms: and so there is a natural progression in the accuracy and completeness of a pupil's ideas, requiring a corresponding progression in language. Books, which are always less specific in their adaptations than the words of the teacher, cannot be exactly conformed to each one's individual wants. Hence the necessity of an instructor, who can learn the exact wants of his pupils, and bring his thoughts into close contact with theirs. It is with their ideas of things that he has to do at first. When he has a fast hold on the mind, and can draw out from it true ideas on the subject in hand, then the words best suited to their expression will naturally suggest themselves.

Another very general defect in the teaching given in our Public Schools is that of treating the mind of a child too much like that of an adult. Those powers which are but just beginning to manifest themselves, and which are of course in a state of infantile weakness, are overtasked, while others, which are comparatively mature and require activity, are neglected. The faculties of the mind ought to be developed according to organic laws. The process best fitted to accomplish that object is of so delicate a nature, and is so dependent on a knowledge of the juvenile mind and the laws of its growth, that few teachers know how to conduct it skilfully. Though the mind exists as a whole, and is consequently

to be treated as such in education and not as a mechanism which can be constructed or altered part by part, there are certain periods in the history of each when it undergoes important changes, and in the successive changes through which it passes, different faculties or powers of the mind, as they are commonly termed, are more or less in the ascendancy. During several of the earliest years of childhood, the animal nature so predominates over the rational, that the understanding acts mainly in connection with the senses and animal passions. The child is then without fixed principles or settled habits. It has not thought connectedly enough, nor sufficiently compared its ideas, to generalize its knowledge; nor has it performed or repeated similar acts in sufficient number to form permanent habits. Its perceptions and thoughts stand in a great measure apart from each other, and are designed chiefly as a collection of materials for future use. Individual perceptions of various character, with slight, brief and desultory exercises of the understanding, characterize the intellectual activity of this period. The mind is, at the same time, more highly sensitive and more susceptible of impression than at any other age. These facts would seem to indicate the kind of training it then needs. Education in its widest sense commences as soon as one is born. From that time till the school-going age, which with most children does not properly begin till after they are six years old, the freedom and activity natural to childhood may better be accorded to it than denied. The physical constitution, whose vigor is so intimately connected with that of the mind, and which comes first in the order of nature, requires a great amount of unrestricted exercise in the open air. The confinement of the school-room not only preys upon the animal life and spirits of the child, but interrupts that inquisitive notice of external objects to which nature prompts it. The free exercise of the perceptive faculties at this period does more to produce strength and individuality of character than all the set lessons which could be given in the schools. The truth of the remark now made is confirmed by the early history of distinguished men as given by their biographers. Disinclined to school exercises, but admirers of nature, they have been known to stroll through the fields and woods, often lying upon the grass and gazing upon some beautiful landscape, while others were sitting on the bench waiting by the hour to say their alphabet. Almost every line in our best writers shows that their childhood was spent in studying nature's golden alphabet, written in the sky, in the flowery field, in the grove, and in the plumage of its gay songsters. The wants of the mind, as felt by a young child, are a much safer guide to knowledge than any artificial system of mental exercise devised by the teacher. Providence has cared for that better than we can do. Such a knowledge of the objects of nature as the curiosity of a child prompts him to seek, and the mental activity produced by the companionship of other children, together with the influences of home, furnish the best kind of education for the young. The joyfulness of a life thus spent when all the instincts of nature have free play, and evil only is restrained, contributes much to that sprightliness, elasticity and vigor which ought to characterize the young. No period of life is more prolific than this in useful knowledge, if it be not unduly curtailed by injudicious parents and teachers. That course which has here been vindicated for the period of early childhood ought to be gradually changed, so that it may continue in part to later years. Indeed, a school education begins long before the above-named propensities sensibly abate, and for this reason the transition from one mode of mental activity to another, entirely diverse in its character, should not be sudden. But to this topic I shall have occasion to recur in another connection.

Next comes the period for acquiring elementary knowledge, when the imagination and memory are to be exercised vigorously, and the understanding in that moderate degree which its powers admit. It is here that the greatest error is committed in regard to the mode of instruction. It consists in the neglect of the imagination, which is the chief faculty to be employed in the earlier processes of education, and in the overworking of the understanding by forcing upon it exercises altogether above its strength. Of the exclusive use of verbal memory, and its evil consequences, I have already spoken. By means of the imagination a middle ground can be occupied between the perception of objects through the senses, and the contemplation of abstract principles. Such an intermediate process is necessary to the most perfect development of the mind. In the common district school, it is the most important feature to be given to education. The real objects which have been formerly observed are no longer present. They must be brought before the mind, if brought at all, by the imagination. Other objects there are, which have never been observed. These must be presented to the mind by pictorial representation or de-

scription, so that a distinct conception can be formed of them. The language of books, as used in the school, is designed to call forth images of things, of their qualities and their relations. It is only by the effort of the mind that these can be conceived when the words by which they are designated are addressed to the eye or to the ear. Facts, and their relations and connections, constitute the greater part of what is communicated by instruction in the elementary schools. They cannot be vividly and truly apprehended but by the aid of the imagination. The time has not yet come, when the reasoning powers of the pupil can be employed in a very high degree. At some future time the great principles illustrated by these facts may be eliminated, and the facts themselves dismissed and forgotten. But at the time now contemplated, the knowledge of the facts, and the ability to classify and remember them as materials for future reflection, are the immediate object of pursuit. Things may now be arranged in the mind according to the order in which they actually exist. The imagination is to associate and organize them. The stricter classifications of science, founded on analysis, must be reserved for a more advanced stage of study. What is here contended for is not the exclusive use of any one faculty during a particular period, but the exercise of each in proportion to its degree of development. They may all begin to act nearly at the same time, but they do not all advance with equal pace. They may all need to be employed whenever any one of them is employed, but not in the same degree. The understanding is slow in its growth, and is the latest of the faculties in reaching its maturity. Its exercises are therefore to be more nicely graduated through the whole period of study. It is first a small rill, and gradually expands till it becomes a broad stream. It is to be incorporated more and more with the acts of the memory and imagination till it shall become the ruling faculty.

The next point in order, in respect to imperfect instruction in the schools, is the want of a strictly progressive system in the course of studies. Reference is here had, not to what is demanded by the nature of the mind in respect to the laws of its growth, but to the order suggested by the subjects themselves and their dependence upon each other. It is not impossible to regard the law of mental development, and yet at the same time to arrange the various studies according to their natural sequence. To follow this order, it would be necessary to begin with the simplest elements of knowledge, the germ of all subsequent attainments, and proceed to that which most immediately grows out of it. Not that all elementary knowledge is equally necessary, or that all the branches of education may be developed from a single principle. The most essential elements of those studies only which are appropriate to the Common Schools, are here the proper objects of attention, and all the rest may be set aside. As these are not identical or even very similar in their character,—those, for example, of arithmetic and geography,—they must each have a beginning of their own. This is obvious enough. In organizing the parts of a single study there is no great difficulty to one who thoroughly understands the subject. But how to arrange different studies, how many to place in parallel courses, how to proportion them, how to connect them with kindred subjects as the pupils advance, beginning with a few threads and ending with a complete web, are questions not so easily disposed of. Language is the most comprehensive of school studies. It involves a knowledge of objects, which spread over a very wide surface. It relates to the voice, in articulation and purity of sound, and easily connects itself, through elocution, with music. It has to do with written characters, and ultimately leads to writing and even to the kindred art of drawing. It embraces the mechanical process of spelling and reading, and consequently the great labor of mastering our orthography and the contents of the books read in school. It requires a knowledge of the structure of sentences, of arrangement and of style, and thus runs into grammar, rhetoric and logic. All this must be contemplated in arranging elementary studies in reference to the English language. Though it may not be necessary to teach them all, still they must be kept in view in every step taken, so that it may always be known not only whence the pupil comes, but whither he is going. With some modifications, similar remarks might be made of the knowledge of numbers, as tending in another direction and branching out into various sciences. Most of the courses of study pursued in the schools are quite too miscellaneous. Some things which are fundamental are omitted. Many are introduced which it would be better to postpone to a later period, or leave to be learned in practical life. In the studies that are judiciously selected, there is not unfrequently a want of proportion and proper sequence. All these evils spring rather from negligence than from any other cause. If the proper persons

would earnestly turn their thoughts to the subject, great improvements would be the immediate consequence.

In the management of the several branches of instruction in detail there are well settled principles which are not always observed by teachers. With a brief allusion to a few of these, I will close this part of my subject. One of these is to proceed inductively, or rather analytically, in the method of teaching, wherever the nature of the subject will admit. By this is meant not that scientific analysis and mode of reasoning which can be pursued only by persons of philosophic habits, but that easy and natural process of beginning with the simplest and most obvious facts and proceeding to other connected facts, by an order which makes one step naturally follow another, and enables the child to answer the questions of the teacher from what he himself observes, rather than from what is told him. Something which can clearly be perceived is first exhibited to the class, and is noticed by each member, till the teacher is satisfied that it is well understood. In arithmetic, it will be a single object to illustrate the number one, which will then be changed for other single objects, till the number is associated with so many of them, one by one, as to lead to an idea of its abstract nature, or its applicability to any one thing. Next, two similar objects will be presented, and the one be added to the other and then subtracted from it, till the nature and all the powers of this number are understood. In music, a sound will be presented, and imitated, and, for the sake of comparison, another will be introduced, and the difference in length, pitch and force noticed, till the pupil shall himself perceive, what by other methods would be told him, and be received on the teacher's authority. In drawing, the same thing is done by presenting a straight line on the blackboard, and varying its position, as vertical, horizontal, and oblique, and presenting another straight line in combination with it, making two parallel lines; a right, an acute, an obtuse angle; and then modifying these so as to produce all the forms and figures which can be made from them. And so of a larger number of straight, curve, and waved lines, and figures produced by their combination, till the pupil shall have worked out for himself, by his own invention, the elementary principles of the art. In all these and other studies to which the method is applied, the attention of the learner is at the beginning drawn to that one point, which is the simplest and first in order, and then to another, connected with the preceding and next in order, and so of the rest, the teacher merely directing the process, and the pupil going through with it for himself. Each step in the process is so arranged as to give the means of taking the next. Everything extraneous is carefully excluded, and all the difficulties which occur are solved by means of what has gone before. This method, which is applicable to many of the studies pursued in the schools, requires more care, labor and invention than teachers are generally willing or perhaps able to bestow. But if it be restricted to its proper uses, and skilfully applied, it is one of the best means of intellectual training. Nothing can be more valuable in respect to the formation of correct mental habits. It proceeds upon the principle of teaching nothing which the pupil can find out himself. The knowledge, too, thus acquired, is all perfectly arranged and grouped in the mind so as to prevent confusion, and thereby facilitates the work of the memory no less than of the understanding.

In studies which have not this unity of character, the complexity must be overcome by a similar process, by separating its parts from each other, so that difficulties which would otherwise be accumulated may be taken one by one, and easily disposed of. To do one thing at a time is generally the right method in such cases. There may be instances in which two things are so reciprocal in their influence upon each other, that they appear simplest when taken together. Such cases are easily distinguishable, and can be treated according to their peculiar nature. But in most studies which are agglomerate in their nature, as orthography, reading, geography, and the like, the danger lies on the side of overwhelming the mind with too many things at once. It then becomes necessary to exclude what is not essential to the subject, to postpone what is not fundamental or strictly elementary, and to arrange the remainder in such a way that the part which sheds most light on the rest shall always precede.

It is scarcely a less important principle in teaching, to make sure of what has once been learned, either by constantly reviewing it, or by frequently using it in the subsequent part of the course. Every review should be conducted in some new way, so that the same principle shall re-appear under ever-varying forms. The novelty of its new appendages will keep up a fresh interest in the mind, while the previous knowledge of the general sub-

ject will cause the light easily to break in and shine on all its parts. That which is essential will come to be clearly distinguishable from that which is accidental, and will consequently be more perfectly comprehended. The want of attention to this obvious truth renders the knowledge acquired in the schools often exceedingly insecure, many things fading from the memory in order to make room for others. Nothing that is learned at this period should be allowed to be forgotten. Whatever is not worthy of being remembered is not worthy of a place among the appointed studies. The habit of forgetting some things, when attention is turned to others, is so great an evil in itself, and so disheartening to the learner, that it is better to know perfectly and retain easily and securely a part, than to have many studies pass through the mind as clouds sweep through the sky.

Difficult studies should have so much time devoted to them daily, at the beginning, as to render them familiar and attractive within a moderate period. Early success brings with it high mental gratification, the best means of creating a permanent interest, and securing energy and diligence in study. Such studies should alternate with others that are already familiar or easy, and that are adapted to recreate the mind, by calling into exercise other and dissimilar faculties. This power of relieving the understanding or memory when fatigued, by exercising the taste and imagination, as well as the organs of the body in vocal training, drawing and the like, has not yet received due attention. Such things are to the mind what oxygen is to the lungs, they renovate it, and speedily put it in a condition for renewed exertion. The mind can no more continue to work through one of its faculties without rest or change, than the body can through one set of its muscles. Change, at suitable intervals, is the law of life to both. Those studies, therefore, which furnish mental recreation, can be introduced into schools without any loss of time. As much can be accomplished in the severer studies, in connection with them, as without them. The skilful teacher will manage to keep the minds of his pupils in good condition and in the right mood, as a musician will keep his instrument rightly tuned and pitched, and will skilfully introduce those changes in successive exercises, which will keep the mind in the best working order.

In passing to the other general topic proposed for discussion, we come first to the distribution of studies with reference to the different grades of schools. In the primary schools are to be acquired the first elements of education; in the grammar schools are the foundations of the common English branches to be laid; and to the high schools are to be referred the higher English studies and a beginning in the languages. Although this gradation in the schools is to be made rather according to the attainments than the age of the pupils, it may be of use to those who are familar with only mixed or district schools, to state, that when we speak of primary schools, we contemplate them as being attended by children from about six to ten years old. According to present custom, however, the average age would fall about one year lower, making it from five to nine. With an infant department, the Public Schools ought, in general, to have nothing to do. The boundary line between the grammar school and the high school will be variously drawn, according to the general elevation or depression of education in the towns where they are respectively held. In many towns there will be but two grades of schools. In others, though there may be three grades, the studies will not range high, while in the cities and large towns, intermediate schools will often be introduced, between the primary and the grammar schools, elevating the latter, and thus placing the high school far above the position which it holds in other places. It is not necessary for our purpose to include a plan of study for the high schools. It will be easy to regulate these, if the lower schools are properly organized and their work well done. Our chief attention is now due to the primary and the grammar schools. I begin with

THE PRIMARY SCHOOL.

As there will be several classes in such a school, it will be most appropriate to begin with a consideration of the youngest, with those who have but just entered it. If suitable arrangements could be made, it would be desirable to have each session of the day for study not more than an hour and a half or two hours long. The object of such short sessions would be two-fold; first, to consult the physical comfort and well-being of the children, and secondly, to prevent too sudden a transition in their mental habits. Where such an arrangement would be impracticable, it would be well, if, during a part of the school

hours, an assistant teacher, or advanced pupil, could accompany the class on the play-ground or somewhere in the vicinity of the school, and teach them to make such accurate observations upon the various objects presented to view, as would give precision to their knowledge of forms, colors, proportions, measures and distances. These things, which are the corner-stones in the edifice of knowledge, a deficiency in which gives such a weakness and tottering appearance to the superstructure afterwards reared, can be learned much more readily and perfectly outside of the school-room than within it. This knowledge is needed in every elementary study. How many persons study hundreds of lessons in arithmetic, depending on such measures of length as inches, feet, yards, and rods, without being able to estimate by the eye the length of anything in one or other of these measures! What an infinity of hues and colors is spread before the eye in nature, the notice of which, with their appropriate names, would supply a deficiency which most persons feel through life! And is it not better to study the forms of things in their actual state, than from definitions, pictures and diagrams? Soo, too, symmetrical proportions and groupings of things, according to the laws of propriety and taste, are nowhere better taught and exemplified than in the material world. The course which is here recommended would differ from the casual and disconnected observations spontaneously made by the young child in following his amusements, and from the instruction in the same subjects subsequently to be derived from books, and would seem to be the most natural way of passing from one to the other. There should be regular gradations in the first as well as in subsequent exercises of the school, and a period of many weeks should pass before a child should be chiefly occupied with books. That is not so much the time for teaching anything absolutely new, as for making one more perfect in the knowledge of things already more or less known,—to make firm the foundations on which he stands, and to enable him to reach securely to that which is next above.

Following these exercises of the eye and the judgment on visible objects, will be others in a second part of the preliminary course, in which kindred things shall be presented to the mind or imagination, to be considered and orally discussed in the school-room. Neither the objects themselves, nor books giving an account of them, are now to be used. But in respect to familiar things, the memory and the imagination of the pupil are to furnish the materials for mental inspection, and in respect to others, either specimens, models, pictures, or other representations are to be presented by the teacher, and the circle of the pupil's ideas to be enlarged by means of comparison, of resemblance and contrast, slowly and cautiously proceeding from the clear to the obscure, from the known to the unknown. Here language (oral of course) in connection with things will begin to receive particular attention. Not only the names of things, and of their properties, relations and uses, but the proper conversational forms of expression, the easy and natural use of language as an instrument of thought in describing what has been observed, or conceived of, become more and more an object of attention. The teacher will find it necessary to spend no little time in selecting and arranging groups of objects, adapted to the age, intelligence and local circumstances of the children. These will vary with the localities of the school, the physical features of the neighborhood, and the occupations and habits of the people.

Foreign objects should not receive attention, except incidentally, till those connected with the place are generally understood. Furthermore, the teacher must have some reference to his own acquaintance with things and the appropriate popular terms to be applied to them, in making his selection. A city teacher going to an agricultural town, or a country teacher to a sea-port town, or either to a manufacturing town, might find himself not much in advance of his pupils, in the knowledge of some familiar things. In the first case, the children would all know one tree or shrub or stone, from another; the teacher might or might not, and so of corresponding objects in the other two cases supposed. Books on this subject will be useful in aiding the invention and memory of the teacher, but no selection of topics in books, upon what are termed object lessons, can be well adapted to all places, and to all teachers. Every teacher can succeed best with a plan and selection of his own. Indeed, the plan may be more or less systematic, according to circumstances, without injury, provided it be natural, and dispose of the several objects of attention by putting them in their true places and relations.*

* Many methods have been given by different writers on the subject. From one of the latest authors on education, I will extract a few of the first exercises which he lays down in his course of object lessons.

1. The *school-room*. The names of the things to be seen in it, and the parts of which each is composed, but without

In describing familiar objects, it is better that the pupil make the attempt, and be aided when it is necessary, by the teacher, than that the teacher furnish the description for him. But when an object is unknown and cannot itself be exhibited, the attempt to present to the imagination a picture of it, by whatever means, must, of course, be made by the teacher. In reviewing the lesson given by the teacher, the method can be changed, and the pupil be required to give in his own language the ideas he has received. Thus, besides the benefit of mental exertion and the increased interest thereby awakened, an opportunity will be afforded to ascertain the exact state of his knowledge, and to know what to supply and what to correct. The habit, too, of studying correct forms of expression, not in composition on set themes, but orally, on topics of present interest, where the train of ideas is given by the objects themselves, and where language flows spontaneously in the warmth of feeling, and where the tediousness of writing, and attending to all the nice points of mechanical execution is avoided, is, for this early age, as valuable as it is easy of acquisition. It will be necessary for the teacher to avoid, as far as may be, learned and scientific terms, and to guard against the temptation to classify objects after the manner of scientific books, instead of grouping them as they are found in nature. The horse, for example, should not, in such an exercise with children, be associated with the camel, or zebra, but with the pasture, the carriage, and the rider.

During this early period it is advisable to accustom the children to make free use of the blackboard, and of the pencil and slate. It will furnish amusement and occupation, while the teacher is attending to other classes. The muscles of the arm and hand will thus be trained. The first lessons in drawing can be conveniently given and practised now. Singing can also be introduced, provided it be wholly by rote, and be limited to one or two simple and appropriate school songs, in which style of delivery and expression shall be chiefly regarded. There are various other bodily exercises, partly for recreation and change, and partly for improvement in manners, and for preserving order, which are with great propriety introduced into many of the Public Schools.

But the time will soon come,—with most teachers, as the schools are now organized, quite too soon,—when a beginning must be made with the elements of written language. Indeed, the ability to spell all those words which present no peculiar difficulties, and to read ordinary sentences with fluency and accuracy, is the chief object to be aimed at in the studies prescribed for the primary schools. The domain of knowledge should, at this stage of study, be divided into separate departments as little as possible. A general knowl-

the technicalities of the artisan. The comparison of their form, size, color, and material. Which of them are found but in one, and which are common to more than one. Which are single articles of the kind, and which exist in larger number. Counting of corners, seats, and desks to the number of four or ten. But avoid nice geometrical ideas and terms which do not occur in the child's daily life.

2. *Apparatus*, whatever is used in the school, whether by the teacher or by the pupils; which of these belong to the school, which to the teacher, and which to the pupils. Connect with this the idea of ownership, of mine and thine, and the pronouns and cases used to express the idea of the possession.

3. The *teacher and the pupils*, and their respective tasks. Exercise on the use of the verb. The number of children on one row of seats. The idea of more and less, and that of persons coming together for a common object.

4. The *human body*. Those parts which address themselves to the eye, omitting the internal organization for the present. The actions of men;—"every person has, &c." "Every person can, &c." "Some men have—can, &c." Old, young; large, small; strong, weak. The five senses, motion, voice. The nature and powers of the human mind do not belong here.

5. *Animals*, compared with men. Select from the mammalia, (which can easily be shown,) a dog, cat, squirrel; also, a bird. Compare them part by part, and their actions. "I should not like to be a brute animal, because, &c."

6. *Food*. Common, uncommon articles. Whence does it come; what its use; and how prepared? Wrong use of food, improper quantities; at improper times; what does not belong to us, but to others, as fruit on trees and in gardens.

7. *Clothing*, of children, of adults, of foreigners, compared with that of animals. Whence does it come; and how is it made? Washing garments. Order and neatness. Costly and cheap dress.

8. *Dwelling-house*. Parlor, sleeping-chamber, kitchen, cellar, store-room. The use of each. The furniture of each. The kind of work done in each. Lights, fires, provisions, and arrangements for the coming season. Who built the house? Who will hereafter occupy it? The dwelling-places of animals.

9. *The family*. Father, mother, brother, sister, domestics. What does each perform for the others? Division of labor. Mutual care. Sickness. What does each owe to the others?

10. *Domestic animals*. Dog, cat, cow, ox, horse, sheep, swine, hen, goose, duck, dove, sparrow, swallow, rat, mouse, mosquito. Description and comparison of the form, size, color, covering, members, voice, motions, actions, food, use, or noxious character of each. Show the animals, or pictures of them. Anecdotes respecting animals. "Never torture an animal for sport."

(For the remaining topics, I will merely give the subject, omitting the details given by the author, which can easily be supplied after the analogy of the preceding.) 11. The environs of the house. 12. The village, or city. 13. The professions and occupations of men. 14. Sunday. 15. The farm. 16. The forest, (trees and animals.) 17. Adjoining towns or villages, (direction, comparison, size, roads, bridges.) 18. Hills, valleys, and plains. 19. Animals, tame and wild. 20. Plants. 21. Stones and common minerals, (they must be exhibited.) 22. The heavens, sun, moon, stars. 23. Varieties of weather in the various seasons of the year, (the use of the impersonal verb, "it rains, snows, thaws.") 24. Time, its measurement, and what is appropriate at each season and period, (its effects on man, and other things.) 25. Holidays. 26. Public buildings and industrial establishments. 27. Magistrates, rulers and public officers and their duties. 28. The military. 29. Manufactures, (articles, materials, machines, operations.) 30. Coins, (kinds, value, national, by whom coined.) 31. Weights and measures. 32. Commerce and trade. 33. Health and sickness, (causes and remedies.) 34. Death, (causes, effects upon others, burial, and the departed spirit.)

edge of easy books, including the mechanical structure of the words and sentences, and the common objects referred to in those books, not classified and separated into different branches, such as grammar, arithmetic, geography, physiology and natural history, but viewed as matters of every-day life, which all persons of common sense and common intelligence must know; some simple view of the parts of a sentence, of the subject, of the verb, and of their adjuncts; some practice illustrating the powers of small numbers; some facts in history and geography; some few rules of health; and many details which will afterwards be referred to the different branches of natural history, will all find their place in connection with elementary reading. Only in this sense should those and other similar branches be introduced into the primary school. It is a mistake to suppose that, by advancing farther in the subjects of study, the pupils will be better fitted for the grammar schools. So far is that from being the case, that one of the greatest obstacles now thrown in the way of the latter is, that the pupils, which enter them from the primary schools, have skimmed lightly over so many subjects without being well grounded in any. The great principle to be kept in view in the whole course of education, is to keep back the learner and confine his attention to the rudiments, till the mind shall acquire a power and tension which shall make every step taken of advancement a vigorous and perfectly successful one. Slow growth is much more substantial and real than that which is premature and forced. Especially should that which is to be the kernel, the germ of all future knowledge and discipline, be made healthy and sound. The *first things* should be most cared for, because they give character to an interminable series proceeding from them. If education begins right, all is right; if it begins wrong, all is wrong. Therefore, for our purpose, we would change the old adage, and say, "All is well that begins well."

We have thus far supposed the child to be employed in oral exercises upon objects. The next great work to be accomplished, much greater and much more unattractive than what has gone before, is to learn how the same language which he has learned to speak, and which has hitherto been addressed to the ear only, can be represented to the eye, and used in the printed form. Here arises one of the greatest of all the difficulties which the teacher has to overcome. That barely tolerable degree of success which attended the old methods of teaching was not so much produced by the instruction given as by the great aptness of children to learn in spite of the defects of method. Though the power to read words correctly, at sight, must always be the result of great labor on the part of the young, and though certain steps of the process are almost purely mechanical, yet it is generally conceded that much of the effort commonly made does not tend at all to the end in view, and that much of the time spent in learning the alphabet, and in applying it to its uses, is but little better than thrown away. Few teachers have so carefully analyzed this complex process as to have a method of their own, founded on well established and clear principles; and hence the very common practice of merely doing what others do, or have done before them. The whole process needs to be resolved into its parts, and those parts to be kept as distinct from each other as possible, and arranged in the most natural order, so that the pupil, by mastering one difficulty at a time, may securely proceed, step by step, till he finds his way through. It is of the utmost consequence, also, to preserve the natural freshness and spirit of language, and prevent its passing from the character of a living to that of a dead language, when, instead of being the medium of personal intercourse by the voice, it takes on the more dignified air of a printed book. This enormous evil in the schools reaches far and wide, and spreads itself into a thousand ramifications. The interest which was taken in the exercises of the school, when they related to objects, and were conducted by the living voice, abates, and is nearly lost, when nothing but dull exercises or dry syllables and hard words are given, as if to puzzle the ingenuity of the learner. The mental faculties, except the memory and the power of divination, in respect to the sounds of letters, lie almost dormant. If the mind should chance to busy itself much with thought, it will be as likely to form false and ludicrous conceptions as right ones, in connection with the long columns of new and strange words. Reading will be the mere putting together of the sounds of syllables, words and sentences, which will call up that ghost known as the genius of school reading.

Men may differ in opinion as to the number and order of the successive steps to be taken in teaching the use and powers of letters. There is probably no one method equally adapted to all. But the principle of laying the process carefully out into its several parts, and of attending to them one by one, can hardly be called in question. The old, and

in many places obsolete, method, first, of teaching the alphabet by showing the letters, causing their *names* to be repeated without any regard to the sounds they represent, and then of teaching spelling by calling the names of certain letters in combination, and of pronouncing the syllable or word without any reference to the separate elementary sounds which, when united, constitute the word, will now find but few intelligent defenders. It is conceded, on all hands, that the name of a letter does not, except by accident, give any clue to its power, and that the connection between the first and second parts of the act of spelling a word, naming the letters and pronouncing the word, is purely arbitrary. It is, indeed, necessary to know the names of the letters, and it will often be convenient to resort to this arbitrary practice, but not till the natural and philosophical one, the phonetic, has become familiar. There is, furthermore, no propriety in making a child learn the names of all the letters of the alphabet in their order at first. It is, in itself considered, unnecessary; and, in its immediate effects, it damps the spirit and stifles the interest of the young learner. The most natural process would seem to be something like the following: to begin with what is already well known, a simple word, consisting of but two letters when it can be so, and resolve it into its elementary sounds; then to unite the sounds again so as to produce the word. When the appropriate words of this class have been exhausted, others of three letters, and finally words of more syllables than one, may be analyzed in the same way, giving preference to dissyllabic words over monosyllabic ones, which have silent letters in them. Such exercises may be commenced before looking at a book, or knowing anything of the forms or names of letters, and continued till the various easy words, composed of single consonants and vowels, with either long or short sounds, shall be readily resolved into their elementary parts and then reproduced by the union of those parts. This should be the first step, because the previous use of words, or sounds in combination, gives all the means necessary for the analysis of these sounds. The pupil is still within the sphere of his own knowledge and experience. Again, as the name of a letter is but a mere symbol of its form, and as the letter itself in its visible form is but a symbol of the sound or sounds it represents, it is clear that we ought to begin with the sound as at the source, and proceed from things to their signs, and the names of these signs.

The next step would naturally be to direct attention to the outward forms or visible characters used to represent those sounds. This work is also one of great complexity, and will need to be simplified. Whether it will be expedient to begin with the vowels alone, or with the easiest vowel and the easiest consonant together; whether one sound of the vowels shall be taught by itself, or the two most common sounds be introduced in connection with each other, each instructor must decide for himself. As we have now to do with both the sounds and the forms of letters, those letters should come first which are, in both respects, the easiest to apprehend and use. Letters which are represented by single characters should come before those whose characters are complex, especially if the pupil be required to make them on the slate or blackboard. Of those of similar form only one should be learned at a time, and that should be the one most frequently occurring in words; for the memory is embarrassed by the necessity of nice distinctions, whereas it is aided by striking contrasts. Consonants which have different sounds according to their position, diphthongs, and, in fact, all irregularities, should be excluded from the first lessons. I know, indeed, that one cannot proceed very far in teaching the elements of our language without encountering difficulties arising from anomalous sounds and combinations of letters. But of this apparent chaos in English orthography, some parts are much less chaotic than others. Great irregularities, or those which do not extend to large classes of words, belong not appropriately to the primary school. The fact that vowels in a certain position are generally long, and in a certain other position are generally short, may be made very simple, if we dismiss for the time being the numerous exceptions. So, also, the fact that the long sound of each of the vowels is represented by certain diphthongs, may be easily recognized and followed, if we limit our attention to large classes of words. The influence of the letter *r* upon certain vowels, modifying their sounds, can be made obvious to any child. Indeed, all that part of orthography which belongs to the primary school, may be taught without occasioning very great perplexity to the pupil.

When a child comes to put words together in reading, so as to form a sentence, no pains should be spared by the teacher to preserve the natural tones of human speech. Children are the most natural speakers in the world, and would, without instruction in inflection, tone and emphasis, read well, if they could be made first to feel and speak short and easy

sentences, like those to be read. Suppose a sentence to begin with the salutation, "Good morning." The child may be directed to repeat the words with such feelings as would naturally arise in different circumstances. The teacher might say, "Imagine yourself coming from a cold chamber, early in the morning, and meeting your brothers and sisters sitting by a cheerful fire, bright as larks, how would you speak these words to them? If you were to enter the room of a sick mother, in what tone would you address these words to her? If the weather were dull, and your feelings sad, and you were to meet your teacher who had reproved you for some improper deportment the day before, how would you salute him? If, on the fourth of July, you should go out early and find your companions full of glee, what would be the way in which you would say 'Good morning,' to them? Well, here we are about to read of a girl, who was a little out of humor with her older sister the evening before, and now wishes to make amends for it, how would she be likely to speak these words to her sister on approaching her?"

Suppose a quarter of an hour were spent in such an exercise, on a single phrase, and the residue of the sentence were left for the next exercise, could the time of the teacher and pupil be more profitably spent? All that is necessary to insure natural reading at the outset, is *to ply the imagination of the child, till it has produced the appropriate feeling*. The tones and inflections will take care of themselves. When the result has been properly brought out, and every one knows and feels that the utterance of the words was as it should be, then it may be well to note it and record it as a thing ascertained by observation. Thus, by constant transitions from reading to speaking and from speaking to reading,—working every word and thought and image into the understanding, imagination and feeling of the young reader,—an effectual barrier will be raised against that grotesque habit of mouthing and drawling words which is not yet banished from our schools.

The subject of the piece to be read, the thoughts conveyed, and the words employed, ought not to be such as require much explanation. Still the teacher should be satisfied with nothing short of positive evidence that all these are perfectly understood, before any attempt is made to read the passage aloud. But the faults of the voice, and of articulation, will be likely to be so numerous as to require much vocal training. It is absolutely painful to go into some of the schools and hear the screeching voices, the outlandish and provincial vowel sounds, and the defective or exaggerated articulation which constantly offend the ear. The importance of a pure, rich and pleasant tone of the voice, both in school and in domestic and social life, is rarely estimated as it should be. It is the natural interpreter of the heart, and carries with it agreeable or disagreeable impressions and associations, as it bears marks of rational control, dignity, gentleness and sweetness, or of the want of all these qualities. A decidedly bad management of the voice in the teacher should be a bar to his admittance to the school. The attention now given to music in the schools, besides improving the feelings, taste and deportment of the pupils in other respects, has had the effect to prune off the grating harshness of the voices of both teacher and pupil. It is still a common defect in both the speech and reading heard in the school-room, that the vowel sounds are wanting in purity and exactness. As these constitute the body of the sound heard in speech, the main current, as was once said by an accomplished teacher of music, on which the consonants fall like leaves and are borne away by the stream, they should be truthfully given. They should, moreover, have a full and sonorous utterance so as to give them their proper musical effect. One of the incidental evils resulting from efforts made to improve the articulation of difficult consonants, is, that the latter have been given with an exaggerated force; whereas distinctness and delicacy only are required; and thus not only have the harsher elements of our language been needlessly rendered harsher still, but they have been made to compress and almost crush the vowel sounds, and thus injure the music of the language. Let me not be understood as disparaging elocutionary exercises on the consonant sounds. I only speak of the mistake that is often made in confounding force with distinctness, leading to a violation of the principles of true taste, and putting the teacher of reading at war with the teacher of music. The true teacher of elocution and the true teacher of music recognize the same principles of taste, and work as coadjutors rather than as antagonists. I now pass to the studies of

THE GRAMMAR SCHOOL.

Those which have by usage long been properly assigned to this grade of schools are reading, spelling, writing, arithmetic, grammar and geography, to which we must now add,

to a limited extent, physiology, music and drawing. I do not say that no other study should ever be introduced, but I do say that any others ought to be introduced with great consideration. In some places there are no high schools; and therefore some of the branches appropriately belonging to them may, in such cases, be introduced into the highest class in the grammar school. Other studies than those named above may seem as important as music and drawing. But, besides the fact that these two branches give completeness to mental culture by their direct influence on the taste, and that they are useful in life, which might be said of other studies also, they are needed for the aid which they render to the other studies. There is much truth in the paradoxical statement sometimes made, that they consume no time at all in school. The other studies will, on the whole, be prosecuted more successfully in the same time where these are introduced than where they are not. They not only furnish recreation, but the former improves the voice and the taste, and thus aids in reading, while the latter aids in illustrating many subjects on the blackboard, and greatly facilitates writing. The importance of natural history, and natural philosophy, and of general history, will be readily admitted. But such parts belonging to the various branches as are really needed at this early period, can be sufficiently taught in connection with the other studies, or they may form the subject of general lessons, given orally, at certain times, to the whole school. The thorough study of all those sciences in daily or even semi-weekly lessons from text-books, would demand more time than is *ordinarily* consistent with thoroughness in the other branches. Whether it is better for scholars to have a smattering in all these things, or to be well versed in a part, even a small part of them, will, I trust, no longer be made a question.

Reading in the schools, when properly conducted, has reference to three objects: to an ability to give easy utterance to written language; to the acquisition of general knowledge and discipline; and to the power of properly expressing thought and feeling by the tones of the voice. These are so intimately connected with each other that they cannot well be entirely separated and pursued apart. Still one of them may, at any given time, be the chief object of attention, while the others shall also be kept in view. The first must have the chief place in the primary school; the second, in the grammar school; and the third in the high school, or in the higher classes of the grammar school.

In the grammar school, the reading book should be made the source of more abundant and varied instruction than any other. It is the introduction to, and representative of, general literature, which, in the Public Schools, deserves at least an equal rank with science. It should be studied at this time, not merely, nor chiefly, for learning to utter easily and correctly the words of a sentence, or for acquiring elocutionary skill, but for exercising the intellect, the judgment and the taste, and for storing the mind with the choicest knowledge. The reading exercises are to the lower schools, what the study of the Latin and Greek classics are to the higher. They are to open the way for commerce with the general intellect of mankind. This kind of knowledge and culture is well suited to the wants of persons of the age here contemplated. In most schools, it is altogether too sparingly given. In others, the manner of giving it is faulty. The vocal reading of a piece, selected for a class exercise in reading, should be put off till it has been made a subject of study, of instruction and of recitation. And yet the common practice is to read first, and to have the examination and explanations come afterwards, if they come at all. Visit a school, and propose to hear a class read, and the chances are ten to one, the polite teacher will invite you to select a piece, as it makes no difference with the teacher or pupils. Would an elocutionist do the same, if he were to be the performer? If a class can read one piece as well as another, it must be a remarkably good, or a remarkably poor class. The latter is the safer inference. A passage that has not been thoroughly studied cannot be read well. How, then, must it be with an explanation of all that is contained in it? If all the best chapters in one reading-book only, and that not the highest in the series, could be studied in very short lessons, with frequent, but diversified reviews, it would do much more for genuine education than tripping through a whole series in the light *unthinking* way which is allowed by the common mode of teaching. I know it is said, that children tire of reading the same piece twice. That is true; and they tire of reading it once. And why should they not? What is there in thoughtlessly pronouncing the words of a paragraph, when one's turn comes, to interest the mind? The intellect, the imagination, the taste, the sensibilities are unmoved. The mind is nearly inactive, and, of course, vacant. In successive readings, connected with new objects of attention and corresponding instruc-

tion, the interest of a class would increase every time, until the subject, or the resources of the teacher, should be exhausted. A single paragraph might employ a class a week with a daily lesson, and the last might be the most interesting of them all. First, the general scope of the passage might properly be made the object of attention, and after it had been carefully studied with reference to that end it might be read by the class. In another exercise, all the facts asserted or alluded to by the writer might be ascertained, and, if necessary, be explained and illustrated by the teacher. This would, of itself, be one of the most appropriate of studies in the Common School. The piece might then be read with a better apprehension, and consequently with a better expression of its meaning than before. A third lesson might consist of the study of the exact meaning of the principal words of the paragraph, learned from their application and from the nature of the thought or image presented, quite as much as from the dictionary. School dictionaries generally define abstract terms by abstract terms, and by synonymous words. In both cases, the definition is liable to be no better understood than the word to be defined. These definitions may be committed to memory, and recited to the teacher, and yet the pupil be as devoid of ideas as he was at the outset. Besides, words so studied, have no *specific* character as understood by the pupil. The difference between similar words can best be learned by observing their actual use. A blunder is rarely made by a child, when he employs a word which he has seen or heard used in its proper connection; whereas it is the exception rather than the rule, if a word learned from the dictionary is not misapplied when it comes to be used by the pupil. In a fourth lesson, other words, which are ordinarily used when speaking of the same topic, both those which are synonymous and those which are antithetic, with their differences; the substitution of them for those used in the sentence, and a consideration of the objections against such a substitute in the particular case in hand; a reference to other words of the same derivation with those in the passage, classed together as constituting families of words,—these, and similar topics relating to language, may be examined and be made not only to advance the pupil's knowledge and power of discrimination, but to give him a better appreciation of the passage he is reading. Another exercise on the same lesson might consist of the analysis of the sentence and of the thought into their parts, approaching gradually the spirit, but not the forms, of grammar and logic. It will be seen that all this, while it improves the mind and stores it with knowledge, is one of the essential means for reading the piece with elocutionary effect.

As reading in schools must be influenced materially by the books used, and as these do more to form the sentiments and language of the pupil than anything else except the society in which he moves, a word here upon their proper characteristics may perhaps be allowed. For the sake of bringing all my remarks on this subject under one view, I will include the reading-book of the primary school. The primary reader should contain only such words as the children now understand or can easily understand. The construction of the sentences should be simple and easy. The subjects should be those with which the children are already familiar, descriptions, for the most part, of sensible objects. The matter should be important, deserving to be studied and remembered. The language should be simple, chaste, pure, and idiomatic. The ideas must be attractive as well as solid, and the language sprightly as well as correct. The pieces should be complete, forming a whole of themselves, with a beginning, middle, and end. They should be of suitable length to excite interest, and short enough for single class exercises. There should be variety, without going out of the proper range of subjects or style of composition. The reader for the grammar school, with which we are more particularly concerned, should not be limited to descriptions of material and familiar objects, but should extend to subjects relating to the imagination, and, in general, to that larger circle of knowledge for which the mind is now prepared. In the first book, the ability to read words and sentences was the chief object aimed at. With the second, the leading object is the extension of one's knowledge both in relation to the subjects treated of, and to the language. In other respects the same principles are applicable here as in the case of the first book. Stories and fables, and narratives in prose with a tinge of romance, and plain, easy poetry may now diversify the exercises. Still the subject must be worthy of being studied and remembered, and the language, however various, perfect in its kind. Moral and religious truth may be presented, but in a way that shall avoid monotony and tediousness. The higher productions of art should be reserved for another book; but nearly all species of composition, that involve no special difficulty in comprehending them, should be represented in a reader

designed to introduce the pupils to the treasures of English literature. It is not enough for a compiler that he secure some one or more of these objects; all the objects mentioned should meet in every piece: that is, each piece should unite all the excellences of matter and form of which it is capable. The taste and judgment are now taking their form. Impressions now made will last forever. Whatever is low, negligent, and slovenly, should be excluded without regard to other redeeming qualities. Witty, piquant, or comical pieces should be sparingly introduced, partly because they do not bear frequent repetition and study, and partly because they may, if too numerous, create a distaste for what is solid, and foster a love for what is superficial and trifling. Acquisitions of real importance, and such as are adapted to give depth to the tone of the feelings, and strength and solidity to the character, ought at this time to be made by means of the reading exercises. It is no less important, on the other hand, to avoid premature gravity, for neither is the intellect yet prepared for those habits of thought which make one delight in maxims of prudence and sententious moral sayings, nor the heart for those stern feelings which result from the experience of manhood. The selections should, under a great variety of forms, be adapted to produce earnestness of feeling, without destroying its youthfulness. Every noble sentiment and ardent aspiration ought to be awakened by some one or other of these select pieces.

Of the higher reading books there is less occasion to speak. They are, in general, better prepared than the lower. The chief objection to them, is that which is applicable to all the rest, namely, that they presuppose higher attainments in the schools than exist there, and consequently the pupils are not sufficiently advanced to use them. Indeed, if there is any book which the teacher cannot fully explain, it is the reader for the highest classes.

There are advantages in having a series of readers on a uniform plan, and most compilers, who have had some success in producing a reading book, have set themselves at work to make others to match them. Generally, however, they have exhausted their resources in the first work, and the others are like the last line of many couplets, which have little merit beyond that of rhyming with the first. And it may well be doubted, whether a class, after having been a year or two under one compiler's system, has not enough of it, and whether the danger of flagging in their interest, caused by an impression of sameness, is not as great as that of passing from the best book in one series to the best in another.

Of writing and spelling I propose not at this time to speak, nor of the three branches of study named above which are now just beginning to be introduced.

To arithmetic may be applied the principles laid down in the earlier part of this Report. In the primary school nothing but a few preparatory oral exercises are supposed to have been given. The earnest study of the subject properly begins in the grammar school. The elementary principles of arithmetic cannot be too perfectly mastered at this time. Simple operations on small numbers, not guided by any formal rule, but by the nature of numbers as they will appear from inspection and trial, continued until every operation within this compass becomes easy and intelligible, and so familiar that they can never be lost, would lay a better foundation for mathematics than twice the amount of labor extending to high combinations. Confusion and perplexity, which are the common attendants of the latter course of procedure, destroy confidence in one's conclusions, and render the foundation of this science insecure and weak.

I cannot but think that much time is lost in the common practice of giving to a class a book with rules, to be committed to memory, and then setting them at work upon examples till they succeed in finding the answers given in the book. It not only narrows down arithmetic to a mere mechanical art to accustom one to view it under a set of rules, instead of a science of self-evident principles, but it trammels thought, stifles the reasoning powers, and destroys reliance on one's own independent conclusions. If one understands the nature of numbers, the contrivances are almost infinite by which a result can be worked out. All the ways in which small numbers can be combined, all the simple operations which are possible, should be tried till the pupil comprehends them, till they are as familiar as the multiplication table or the alphabet. All the rest is a logical process,—that of studying the conditions of a problem, resolving it into its parts, and deciding upon the simplest process. The evil of the common course is, that a child is put upon this part of the work before he can perform the ordinary operations on numbers with ease and accuracy. Besides, when

he attempts the higher work, he is not only embarrassed with difficulties which ought to have been disposed of entirely beforehand, but he is unaccustomed to think independently, and rely upon his own judgment, having formed the evil habit of substituting memory for reasoning, and the authority of the book or teacher for the assurance of demonstration. The effect of this hasty and confused way of passing over so much ground in arithmetic can be traced through one's entire course of education. A general want of clearness, of entire comprehension and self-possession, is as apparent in the higher schools as in the lower. The reason of it is that the groundwork was never well laid, the elements were never properly mastered, and the rate of progress in the course of instruction was not graduated by the mastery acquired over previous parts of the course. Thus it often happens that a man, who has never studied arithmetic except in its merest beginning, when he is, by the demands of his business, compelled to make arithmetical calculations, will invent processes of his own,—make his own rules, and acquire both an assurance and a despatch that are rarely acquired in the schools. We often hear complaints made against books on arithmetic; what we most need is teachers; if they are right there will be but little trouble about books.

The estimation in which *English Grammar* is held, has been lowered within a few years, chiefly, as I think, in consequence of the technical manner in which it is taught. Definitions of the parts of speech and the parsing of words according to the arbitrary rules of the books, have been made altogether too prominent. When we consider how much time has been spent in schools on those barren exercises, in which one can be very expert and yet not be able to write a good English sentence, it will not appear surprising that so many voices have been raised against allowing that study to fill so large a place in a system of Common School instruction. What is needed is the introduction of the study of the English language, embracing a much wider view than that of technical grammar. One of the first exercises in the primary school should be to teach the children to express, in easy conversational language, their ideas on most familiar subjects. As soon as they come to use the slate and blackboard, they may write the names of objects and assert their most obvious qualities and actions under the correction of the teacher, and thus learn the groundwork of the structure of sentences. Afterwards, conditions, limitations and modifications of time, place, manner and cause, could be added provided the progress from simple to more complex constructions be very gradual. In the first reading lesson, the thought is to be expressed orally by the pupil in various forms, correctly of course, before the sentence is read aloud. At a later stage the passages selected for reading are to be made the subject of close study; the language is to be analyzed; the import of words and the reasons for using them, instead of others of similar character, are to be investigated. A grammatical reading might here follow, in which the structure of sentences and clauses should be examined, and other forms of expressing the same idea, such as expressing the qualities of things by adjectives, by the genitive case, by substantives, with their prepositions, and relative clauses; or an adverbial idea by a single word, by a substantive and preposition, and by an adverbial clause introduced by a conjunction. The object of these exercises should be to show the flexibility of the language, and to give the pupil the power of varying the form of expression as required by the precise character of the thought or the harmony of the sentence. It is important for the teacher to insist uniformly on the correct use of language in all the intercourse of the pupils with each other and with himself. Especially should it be required of them in all cases, in their school exercises, to express their thoughts with precision, neatness and propriety. Looseness of language is generally connected with looseness of thought. The mathematical teacher well understands this principle, and will not allow any inaccuracy or negligence in the forms of expression used by the members of his class. The teacher, who is in such haste that he cannot take the time necessary to insure the use of correct and appropriate language in his class exercises, but satisfies himself with answers and statements that he believes to be substantially correct, is doing an injury of a deeper character than that of training the young to faulty habits of speech. Speech is the image of thought. If, therefore, the copy be confused or defective, the fair inference is that the original is no less so.

A true analysis of the English language, founded not on outward and accidental forms, but upon the character and form of the thought, an analysis that is concerned with the spirit and soul of language, and not merely with single words by themselves, is very valuable in two points of view. It furnishes as perfect a means of training the mind to close habits

of thought and of nice discrimination, as any other branch of study in the schools. It also gives to the individual, who has learned from usage the idiomatic forms of the language, the means of deciding in cases that would otherwise be doubtful, whether or not a given construction is complete and logically and grammatically correct. Except in this limited sense, no man ever yet learned either to speak or to write the English language correctly from the study of grammar. The study of the parts of speech, as they are called, in order to parse all the single words of a sentence, is by no means useless. The history of the study of the English language, the necessity of understanding the terms used by critical writers on the subject, and the convenience of having names for individual words in speaking of the parts of a sentence, require some attention to the subject. But the idea that the forms of grammar given in our books which treat of the parts of speech enable one to explain adequately the genius of the English language, and to use it with ease and propriety, is entertained by so few, as to require no further notice. These forms of grammar ought, therefore, to be included in a more comprehensive and philosophical system, and grammar itself ought to be but an integral part of a course of study and practice in the English language, which should begin with the young child and continue as long as he continues to think, read and speak.

In *geography*, as taught in the schools, there is great confusion, arising partly from the want of clear views of what can and of what cannot be well taught to the young, and partly from a want of correct ideas in respect to the order in which the several facts and principles of this branch of study should be taught. The great importance attached to political geography and to statistics, for children, shows that neither the nature of the youthful mind, nor the comparative utility of different parts of geography, nor the dependence of political upon physical geography, has been duly considered. Has the child any comprehension of the political interests and civil institutions of the nations of the earth? Can the study of them, in very early childhood, be anything but a mere work of the memory? Nothing can be more unattractive, and few things more useless, than statistics to a young pupil. He is not able to reason from them now, and by the time he shall reach the period of manhood, they will be so changed as to be worthless. Facts like these, and like the lengths of all the rivers and chains of mountains, and the boundary lines of small states and territories, not being arranged in any philosophic or even natural order, are retained ordinarily but a few weeks. An enormous amount of labor is necessary to make them remain in the mind till the day of the examination of the school; and in three months from that time, a great portion of them are forgotten. It is the eye and the imagination, exercised upon the forms and relations of things, that are properly first employed in the study of geography. These forms are subjects adapted to the mental powers and habits of children; and are, moreover, the very things on which geography, as a practical science, depends. The finishing of the various apartments of a house, though very useful and necessary, should not precede the foundations and frame of the building. So in geography, that should come first which is a necessary foundation for the support of the rest.

The elementary ideas which must be used in this study, such as those of mountains, valleys, rivers, &c., can be more readily and more perfectly acquired by observing the features of the country in one's vicinity, than from a book. It is of the utmost importance that these ideas be truthful, as well as clear and familiar. The transition from the actual forms of parts of the earth to the map, ought not to be sudden. Models, plans, views in perspective, and sections, may all be used with advantage in aiding the imagination properly to interpret the maps. After such a preparatory course has been pursued, a globe and physical map of the world, without any book, with nothing but the living teacher, are the first things to be placed before the class. The globe will aid the mind in giving a right form to its conception of the earth, and the map, colored to represent elevations and depressions, but without names and political divisions, will enable the pupils more readily to compare the continents and oceans, the mountains, lowlands and rivers, with each other. The first course given to a young class should be a complete view of the earth in a mere outline, excluding all details. The object now aimed at, is a correct picture, in the mind, of the earth as a whole, with only its leading features. The imagination is confused by a multiplicity of details, and the understanding is misled if that which is secondary is placed on the same footing with that which is primary. The relation, magnitude, form and position of the continents, great islands, table lands and low lands, and chains of mountains, now may be observed and fixed in the memory by resemblance and contrast.

A class will then be prepared to take a single continent by itself. Its figure, drawn approximately in straight lines on the blackboard, and compared with the view presented by the map, should be the first point to be considered. It should be studied so as to be recognized, just as we recognize the features of a man. It will appear in the course of time, that the productiveness of a continent, and its commerce, are essentially modified by its form. Its length, its breadth, its coast line, its direction as extending north and south, or east and west, are among the most essential points in its geography. What if South America were of the form of Africa? or if the whole American continent extended east and west, instead of north and south? The entire character of the new world would be materially changed. After the general form of a continent, without minute details, has been stamped indelibly on the mind, the points of latitude, three in number, in those continents which are of a triangular form, like North and South America, as settling the climate, and with it the character and occupations of the people, should come next in order, and be thoroughly committed to memory. From these, the length of the continent, the number of its different climates, and the relative position of any part of it, with respect to latitude, can afterwards be easily inferred. With the addition of the longitude of the same points, the absolute position of the continent is settled, and may be learned and ever retained in the memory. With such facts fixed in the mind, the student would not need, in the case of North America, for example, to study the climate of each of the several states separately. If he knows in what part of the continent any particular state is situated, he can decide for himself the question of its climate, for he has the premises from which he can ascertain very nearly its latitude. Knowing the extreme points, and their distance from each other, he could readily measure off in his imagination, a half, a third, or a quarter of that distance, as the case might require. At a later period, the secondary features of the same continent may be studied; its coast outline more accurately determined, first by shorter straight lines than those used before, afterwards with curved lines. Then the pupil will be prepared to pass to the internal structure of the country; to notice first of all the frame-work of its mountain system, whether the crest runs longitudinally or across the country; whether it skirts one side of the continent, as in America, or is broken up by the meeting and crossing of different systems, as in the centre of Europe; whether half the continent is upland, as in Asia and North America, or only a single ridge, with a few spurs, as in South America. The net-work of the river system, the intercourse inland and by the seas, the great open spaces for large empires, as in Russia and different parts of Asia, or small basins, enclosed by mountains, for small states, as in Italy and Germany,—these and many other similar conditions of civilization, will ultimately be seen to grow out of the internal structure of a continent, with reference to its mountain system. It is a sort of frame, formed by Providence, into which the nations of the earth are placed to work out their destiny. From a knowledge of this, together with a general view of history, the political divisions of countries may be made to appear natural and easy to be comprehended. How much better at the commencement of the study and until near its close, in the Common Schools, would be this attention to the permanent and all-controlling forms of nature, than tracing the thousand petty and variable lines that separate states, and their greater and smaller sub-divisions. With a knowledge of the former facts, the latter become easy; while the latter alone are neither clear in themselves, nor influential in respect to a knowledge of the others. Neither the memory, then, storing away its undigested materials, nor the higher reason, making the young learner to assume the character of a political economist, is the main faculty to be addressed in the study of elementary geography, but the imagination, and the understanding in its humbler exercises, and the memory in subserviency to both. Form, which is a leading geographical element, must address itself either to the eye or to the imagination. The positions, relations and uses of things, so far as they need to be considered in the earlier parts of this study, are fully within the reach of the understandings of pupils in a grammar school. Higher questions in geography cannot be suitably considered in these schools, but they will find their explanations easily when the mind becomes mature, when the demands of business call for them, and when reading and thinking and discussion become the settled habits of one's intellectual life.

With these imperfect hints and suggestions on certain points in the methods of instruction pursued in the schools, I must, for the present, leave the subject, in order to devote

the remaining part of this Report to an account of the *Operations of the Board*, during the past year.

There is reason to believe that the educational system of the State has been made much more efficient during the last year, than during any other year of its history. In addition to the general impetus given to education in former years, which still continues in all its force, there has been a combination of strong, direct and present influence felt simultaneously in nearly all parts of the Commonwealth. The Normal Schools furnish their full quota of recruits to swell the corps of well-trained teachers. The Teachers' Institutes are receiving favor and doing a work for which no precedent can be found in any previous year. The two agents of the Board are among the people, arousing their attention, proposing improvements in all the practical details of applying school money, of arranging districts, and of building houses, harmonizing conflicting interests, converting private schools and academies either into Public Schools, or auxiliaries to them; and attending public meetings and conventions of teachers, advising with school committees, and visiting schools and aiding teachers by their suggestions.

In all the efforts put forth by the State, through its various organs, there has been observable an unusual degree of coöperation from all those individuals and bodies of men, from whom it might reasonably be expected. The officers of the State government, members of both branches of the Legislature, professional and literary gentlemen, voluntary associations of teachers, school committees, and many citizens of the Commonwealth, in various ways, have manifested great readiness to render personal service, whenever occasion called for it. No better evidence could be furnished that our system of popular education enjoys, in a remarkable degree, the confidence and favor of the people.

There is only one point on which I wish particularly to recommend further legislative action. The representations made in my last Report, in reference to the Normal Schools, need not be repeated. What was then said, is as applicable now as it was at that time. The unusual success and efficiency of the Teachers' Institutes show that they are capable of being rendered an instrument of greater power than was supposed when provision for their establishment was first made. If a public measure deserves increased support when its utility is demonstrated by accomplishing more than was expected, and by revealing, in the course of its action, still greater facilities for usefulness, with a little expansion of the system, then the history of these institutes has shown, that, of all the modes of action which have been devised for advancing the actual education of the people, none are superior to this. The opinion once generally entertained, that these will be needed only as a temporary expedient, till the operation of the Normal Schools shall be more generally felt, must be abandoned. They do not depend, either for their utility or for their support, on any deficiency in the number of teachers trained in the Normal Schools, but on their adaptedness to keep alive a spirit of improvement in the whole profession of teachers. They are as much resorted to by the more experienced and skilful teachers, as by any other class, and are as beneficial to them as to any others. Though their attendance may not be absolutely necessary to enable them to perform their duties with success, it does increase the measure of their success as much as it does that of any other class. If persons of good intellect and of commanding influence can be stimulated and guided so as to become more zealous and efficient, if the best among the great body of teachers can be induced to make rapid strides towards that eminence to which they ought always to aspire, the value of that progress in them is not only as great as it would be in others of a lower order of mind, but it is even greater, because it carries with it the latter as a natural consequence. It would be of but little use to work upon the weaker intellects and upon the more ignorant minds, if there were to be a stagnation in those who give to the profession its character. But if a high state of mental activity can be kept up in the whole body, elevating those who are low in their attainments, and carrying still higher those who are already highest, then a work is accomplished whose influence will be universally felt by the thousands who are receiving their training under this great company of teachers. No one who is acquainted with the teacher's art, as it is practised in some parts of Europe, and with the general character of the teachers in our Public Schools, can for a moment entertain the idea that our teachers, even the best of them, are already all that can be desired, or that there is no room for further improvement.

It cannot be doubted, that if, instead of twelve Institutes in a year, occupying as many weeks, there were to be fifty-two, with the same teachers that are now engaged

permanently, they would all be well attended. It would then be nearly three years before every town would have an Institute held within its own borders. The teachers now often attend several Institutes during the year, and travel from fifty to a hundred miles, at their own expense, to reach some of them. They feel that they have but just begun to learn, and need more aid from the eminent men to whose instructions they have been listening for the space of a week, in order to carry on their studies alone to advantage. The towns, too, are ambitious to have Institutes held in them, in order that the whole mass of the people may be enlightened and put upon a right course in respect to the schools. Though they uniformly furnish board to the teachers, gratuitously, they are literally clamorous for having their turn come early. Within a territory not exceeding about twenty or thirty miles in extent, there are now before me five invitations for Institutes, and three of these are already of nearly two years' standing. But there are some considerations against greatly extending the number of Teachers' Institutes. If they remain substantially as they now are, or their number be but moderately increased, the interest taken in them will be more likely to be permanent, partly because they will not be so common, and partly because they now recur at regular intervals semiannually. Again, there is some reason to believe that the larger towns and cities do not receive their share of aid in this respect. It is true that, generally speaking, the *necessity* for Institutes is greater in other places than these; still the *utility* of them would be as great in the one case as in the other. But it is hardly practicable to hold them in such places. The schools are annual schools; the teachers are employed all the time, except the vacations; and then, both their wasted energies and the season of the year require recreation in the country. To dismiss all the schools in the midst of a term, would be a greater interruption than is now occasioned elsewhere, and yet this would be necessary if an Institute were held in cities, where the terms of all the schools begin and close about the same time with each other. Now, to obviate all these difficulties, something analogous to Teachers' Institutes might be held in all the cities and large towns, during the evenings of the winter sessions. Of the same teachers now employed in the Institutes, a part might be selected to give only such instructions as would be peculiarly adapted to the teachers of the city schools. That the teachers of the primary schools in our cities would be greatly benefited by such a course, and that multitudes of schools would be made decidedly better, by improved methods of instruction in certain departments, where great deficiencies universally exist, is too evident to need remark. But with such gentlemen as are employed in this service, there would, no doubt, be a general attendance on the part of teachers from the higher schools. I would therefore recommend that the sum of $1250 be appropriated to enable the Board of Education to make such further provision for holding Teachers' Institutes, in a modified form, as the wants of the cities and large towns of the Commonwealth shall seem to them to require.

The number of Teachers' Institutes held during the year is twelve, the greatest that the law will allow. More would have been held if provision had been made for them. They were as follows:—

At Royalston,	March 10–15, 1851.	No. in attendance,	111
" Pittsfield,	" 17–22,	" " "	150
" Lawrence,	" 31–April 5.	" " "	101
" Ware,	April 14–19.	" " "	103
" Blackstone,	" 21–26.	" " "	64
" N. Attleboro',	" 28–May 3.	" " "	107
" Petersham,	Oct. 6–11.	" " "	206
" W. Newton,	" 13–18.	" " "	152
	(Besides 100 from the Normal School.)		
" Stoughton,	Oct. 20–25.	No. in attendance,	74
" Southbridge,	" 27–Nov. 1.	" " "	114
" Northboro',	Nov. 3–8.	" " "	124
" Barnstable,	" 17–23.	" " "	129
Making the total number in attendance,			1435
And the average attendance a fraction less than			120

These Institutes are all under the personal superintendence of the Secretary. The Board of permanent Instructors employed by him, are

Professor S. S. Greene, Superintendent of the Public Schools of Providence, and Professor of Didactics in Brown University, teacher of Grammar.

Mr. D. P. Colburn, formerly teacher in the Bridgewater Normal School, teacher of Arithmetic.

Prof. William Russell, Principal of the Merrimac Normal Institute, teacher of Elocution.

Lowell Mason, Esq., of Boston, teacher of Music.

Prof. A. Guyot, teacher of Geography.

Mr. W. J. Whitaker, Principal of the School of Design, in Boston, teacher of Drawing.

In addition to the above-named individuals, Professor Agassiz is conditionally engaged for the ensuing year.

The number and cost of dictionaries, furnished to Public Schools at the expense of the Commonwealth during the year ending December 31, 1851, according to the Resolves of May 2, 1850, are—Webster's Dictionary, 340 copies; Worcester's Dictionary, 8 copies; at an expense to the State of $1,376.

Whole number of copies furnished since the Resolves took effect,—Webster's Dictionary, 3058 copies; Worcester's Dictionary, 111 copies; total expense to the Commonwealth, to January 1, 1852, $12,454.

The whole number of Public Schools, according to the last returns, is 3,987. As comparatively few of these are primary schools, which are not entitled to a dictionary under the Resolves, there remains a large number of schools still to be furnished. Every town in the State, with one exception, has made application, through its committee, for copies, yet in many towns there are some districts that have failed to comply with the condition expressed in the Resolves, and consequently those towns are but partially supplied.

The following is a summary of statistics relating to the Public Schools of the Commonwealth:—

No. of towns in the Commonwealth,	322
No. of towns that have made returns,	320
No. that have neglected to make returns,	1
One town (W. Roxbury,) was incorporated at the last session of the Legislature, and is included in the returns of Roxbury,	1
No. of Public Schools in the State,	3,987
Increase of Public Schools for the year,	109
No. of persons in the State, between 5 and 15 years of age,	196,536
Increase of persons between 5 and 15 for the year,	3,304
No. of scholars, of all ages, in all the Public Schools, in summer,	179,497
Increase, for the year, of attendance in summer,	3,153
No. of scholars, of all ages, in all the Public Schools, in winter,	199,429
Increase, for the year, of attendance in winter,	5,026
Average attendance, in all the Public Schools, in summer,	132,422
Increase for the year,	3,607
Average attendance, in all the Public Schools, in winter,	152,564
Increase for the year,	2,955
Ratio of the mean average attendance upon the Public Schools, to the whole number of children between 5 and 15 years of age, expressed in decimals,	.72
No. of children under 5, attending Public Schools,	17,757
Decrease for the year,	25
No. of persons over 15, attending Public Schools,	20,996
Increase for the year,	2,788
No. of teachers in summer,—males, 345; females, 3876; total,	4,221
Increase for the year,—males, 20; females, 75; total,	95
No. of teachers in winter,—males, 2087; females, 2386; total,	4,473
Decrease, for the year, of male teachers in winter,	30
Increase of female teachers in winter,	199
No. of different persons employed as teachers in the Public Schools, during the year,—males, 2138; females, 4853; total,	6,991
Increase for the year,	256
Average length of Public Schools, 7 months 14 days.	
Average increase to each Public School, 2 days.	
Aggregate increase, 7,974 days.	

Average wages of male teachers, per month, including board,	$36 29
Average wages of female teachers, per month, including board,	15 25
Amount of money raised by taxes, for the support of schools, including only the wages of teachers, board and fuel,	915,839 53
Increase for the year,	51,171 68
Increase for the year previous to the last,	34,704 31
Amount of voluntary contributions of board, fuel and money, to maintain or prolong Public Schools,	39,652 07
Increase for the year,	4,947 76
Amount of money appropriated to schools, as income of local funds,	34,372 92
Aggregate expended on Public Schools, for wages, fuel and superintendence,	1,021,775 66
Increase for the year,	63,274 33
Amount raised by taxes, for the education of each child in the State, between 5 and 15—per child,	4 71
Increase for the year, per child,	19
The law requires each town to raise by tax, at least $1.50 per child between 5 and 15, as a condition of receiving a share of the income of the State School Fund.	
No. of towns that have raised $1.50 or more, for each child between 5 and 15, according to returns,	318
No. of towns that have raised less than $1.50 for each child between 5 and 15, which have made returns,	2
No. of towns that have raised twice this sum ($3.00) or more, per child between 5 and 15,	173
Increase for the year,	11
No. of incorporated academies returned,	69
Average number of scholars,	4,154
Aggregate paid for tuition,	$65,612 65
No. of private schools,	785
Decrease from last year,	60
Estimated average attendance upon private schools,	16,658
Estimated amount paid for tuition in private schools,	$266,312 32
Amount expended on public and private schools and academies, exclusive of the cost of repairing and erecting school edifices,	1,353,700 63

BARNAS SEARS,
Secretary of the Board of Education.

BOSTON, December 10, 1851.